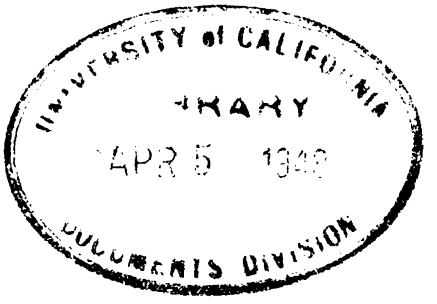
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WAR DEPARTMENT

MAINTENANCE MANUAL AND PARTS CATALOG

LUBRICATOR, TRAILER MOUNTED MODEL NO. 2430

ALEMITE, A DIVISION OF
STEWART-WARNER CORPORATION
1826 Diversey Parkway, Chicago, Illinois, U.S.A.
May 7, 1943



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WAR DEPARTMENT

TM5-9028, Maintenance Manual and Parts Catalog, Lubricator, Trailer Mounted, Model 2430, published by the Stewart-Warner Corporation, is furnished for the information and guidance of all concerned.

(AG 300.7 (12 July 1943).)

G. C. MARSHALL
Chief of Staff

Official:

J. A. ULIO
Major General
The Adjutant General

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LUBRICATOR, TRAILER MOUNTED MODEL 2430

ALEMITE, a division of Stewart-Warner Corporation

1826 Diversey Parkway, Chicago, Illinois, U.S.A.

WAR DEPARTMENT PURCHASE ORDER No.	SERIAL NUMBERS
C-1751	739501 to 739529 inclusive
C-3728	739760, 739769, 739778 to 739801 inclusive
57485	739530 to 739597 inclusive, 739599, 739601, 739606 to 739610 inclusive, 739612 to 739750 inclusive, 739752, 739753, 739754, 739759, 739761
58752	739751, 739755 to 739758 inclusive, 739762 to 739768 inclusive, 739770 to 739777 inclusive, 739802 to 739831 inclusive
59251	739832, 739833, 739835 to 739868 inclusive, 739871 to 739999 inclusive, 771500 and higher

Major Components of Lubricator, Trailer Mounted

NAME	MANUFACTURER
Accessory Grease Guns and Adapters	Alemite
Lubricant Pumps and Tank	Alemite
Hose and Reels	Alemite
Storage Box and Platform	Alemite
Gasoline Engine	Wisconsin Motor Corporation, Milwaukee, Wisconsin
Air Compressor and Receiver	Quincy Compressor Company, Quincy, Illinois
Hydraulic Brake Service Unit	Wagner Electric Corporation, 6400 Plymouth Avenue, St. Louis, Missouri

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ALEMITE LUBRICATOR, TRAILER MOUNTED

Model No. 2430

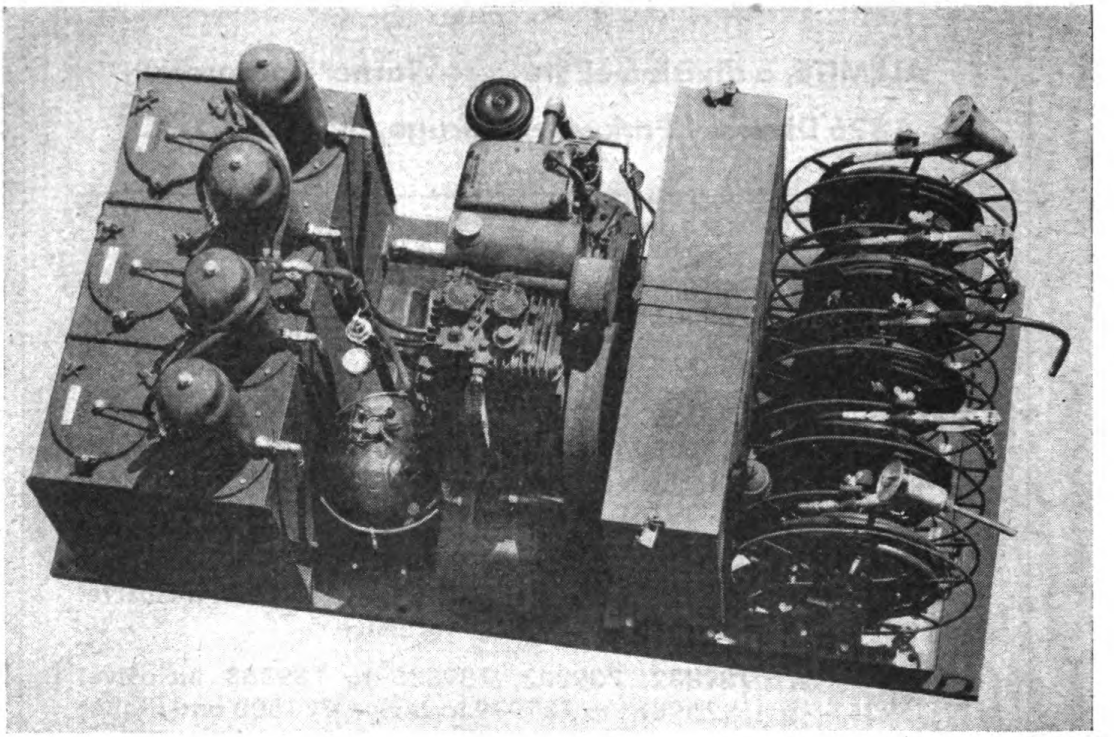


Figure 1—Top View

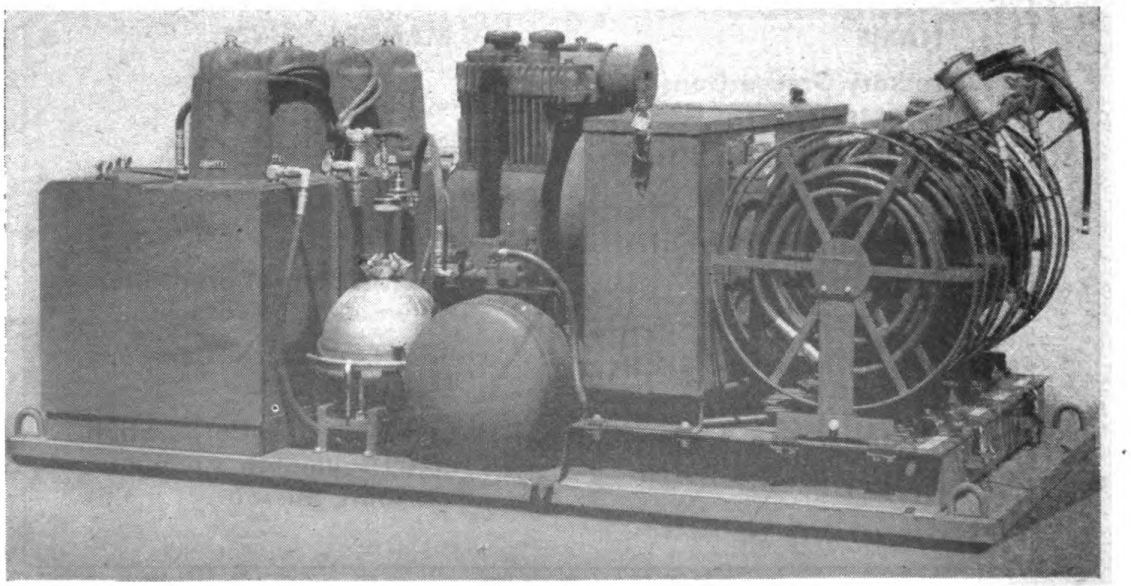


Figure 2—Side View

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ALEMITE LUBRICATOR, TRAILER MOUNTED
MODEL No. 2430

This lubricator provides the equivalent facilities of a modern service station in one compact heavy duty unit. It is skid mounted and completely factory assembled ready for placing on a suitable trailer or truck.

The gasoline engine driven air compressor provides air pressure for operating lubricant pumps, inflating tires, air jet cleaning, etc. Sturdy air operated pumps provide rapid, efficient delivery of general purpose chassis lubricant, gear lubricant, and motor oil from large tanks through reel-mounted hose assemblies directly to bearings and gear cases. Accessory hand operated guns are supplied for handling special lubricants and oils.

Air operated oil spray, force-feed oil can, lubrication adapters, wheel bearing lubricator, hydraulic brake service unit, fire extinguisher, trouble lights, tools and spare parts are also included with the Model 2430 Unit.

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OPERATOR'S MANUAL

LUBRICATOR, TRAILER MOUNTED

MODEL NO. 2430

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I. Operator's Manual

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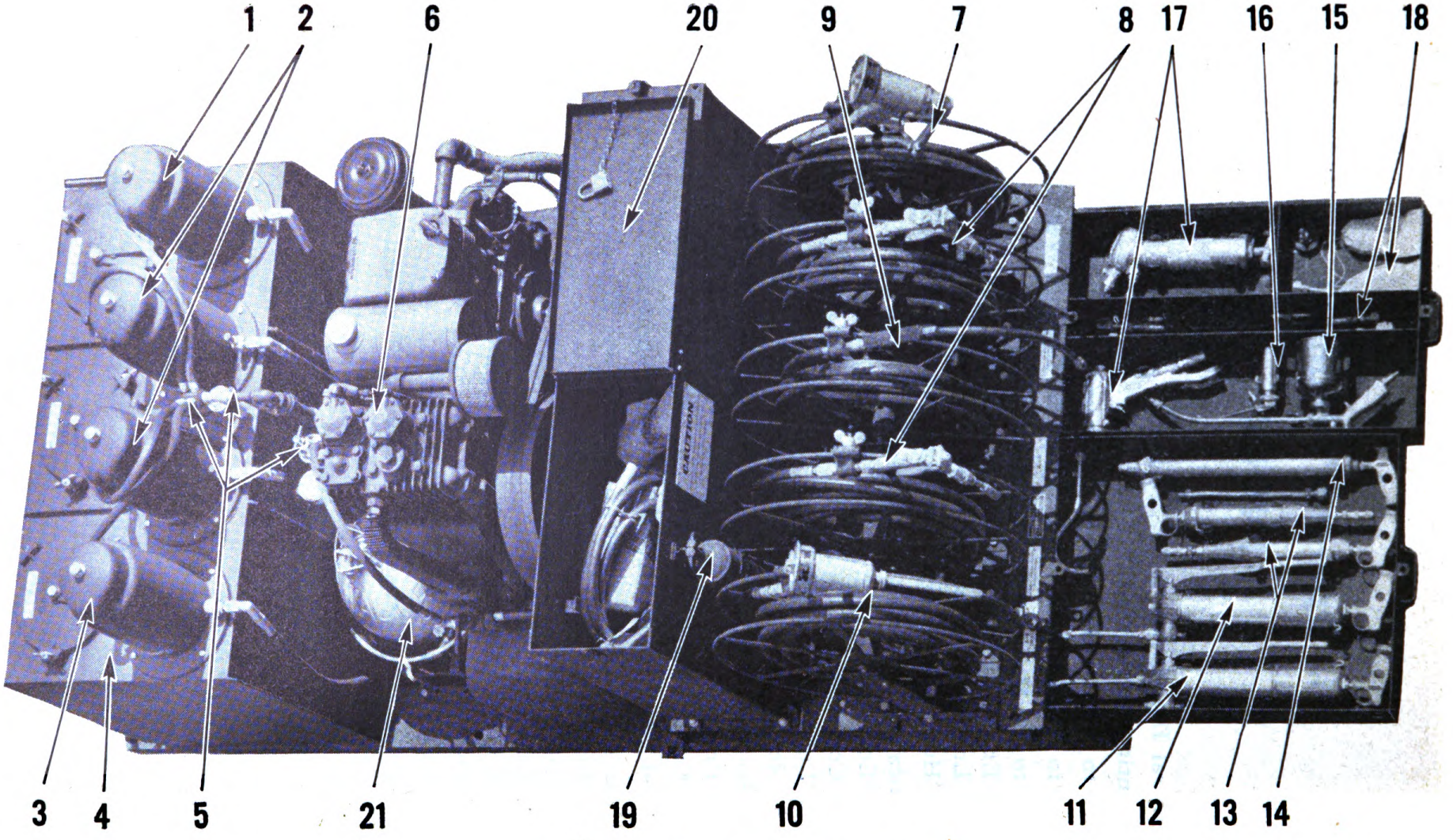


Figure 3—Top View of Lubrication Unit

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A. GENERAL DESCRIPTION

The Alemite Model 2430 is a power operated complete lubrication unit ready for mounting in a trailer or truck. Dimensions at base—45" wide, 95" long. Net weight 1850 pounds. This lubrication unit is comprised of the following main components (See Figure 3).

1. Gear Lubricant Pump. Air operated. Low pressure.

2. Chassis Lubricant Pumps. Air operated. High pressure.

3. Motor Oil Pump. Air operated. Low pressure.

4. Three-Compartment Lubricant Tank. (The two chassis lubricant pumps are both mounted in the center compartment of tank.) The tank is heated by the engine exhaust so that lubricant will flow in cold weather.

5. Air Line Stand and Hose. Used to connect air compressor to lubricant pumps and to air hose reel. Adjustable air regulator with gauge provided for efficient control of air pressure. Reservoir type oiler in main air line supplies oil to all four pumps.

6. Gasoline Engine Driven Air Compressor. Supplies air pressure for operating the pumps and one-pound gun, filling tires, spraying springs, cleaning motors, etc.

7. Reel, Hose, and Hand Meter. For dispensing gear lubricant directly into gear cases.

8. Reels, Hose, and Control Valves. For lubricating bearings equipped with pressure fittings. Adapters and whip end hose provided for lubricating all types of fittings.

9. Reel, Air Hose, and Tire Gauge. The gauge may easily be disconnected from hose, so that air hose can also be used for operating the one-pound grease gun, spray gun, or the small Flex-Tip blow gun. Figure 4 illustrates the air hose and the accessories with which it is used.

10. Reel, Hose, and Hand Meter. For dispensing motor oil.

11. High Pressure Lever Gun. For handling special lubricants.

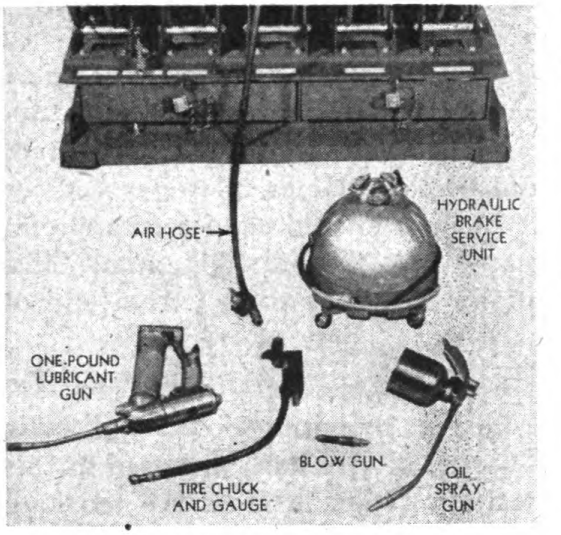


Figure 4
Air Operated Accessories

12. Low Pressure Lever Gun. For lubricating universal joints, steering gears, etc.

13. Push Type Guns. For handling special lubricants, such as those required by water pumps and wheel bearings.

14. Oil Suction Gun. For draining and refilling small housings using fluid lubricants.

15. Air Operated Oil Spray. For spraying springs, etc.

16. Pistol Type Force Feed Oil Can.

17. One-Pound Air Operated High Pressure Grease Gun.

18. Hose and Adapters. For use in lubricating the various types of fittings.

19. Fire Extinguisher.

20. Storage Box. Contains spare parts, wheel bearing lubricator, trouble lights, and tools.

21. Hydraulic Brake Service Unit.

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B.
MOUNTING INSTRUCTIONS

The Model 2430 is designed for mounting in U. S. Government Trailer 08383 Z. Two 10" long bolts, nuts, and washers used in holding base to shipping crate are to be used in fastening rear of unit to trailer bed plate. Rear mounting bolts are to be inserted through holes located approximately 6" from each side of rear end of base. Holes in trailer bed for these bolts should be located approximately 6½" from tail gate. This allows clearance of ½" from end of base to tail gate of trailer.

Forward mounting holes are 51" from rear mounting holes. 4½" bolts (located in tool box) are used in this position (bolts in crate are too long and not suitable). Cross bar (shipped on top of base and held down by crating bolts) is to be placed on the bottom of the trailer to take the place of flat washers. Lock washers and nuts (in tool box with bolts) should be placed on 4½" bolts and drawn securely in place. Cross bar may be used as template for locating proper distance between holes when mounting unit.

NOTE: After all bolts are tightened it is recommended that a punch be used to distort the thread to prevent nut from backing off due to vibration.

C.
HOW TO PREPARE MAIN POWER EQUIPMENT FOR USE

1. Follow instructions in paragraphs 1a, 1b, 2 and 3 of following Section F—Lubrication of Main Power Equipment. It is suggested that all of Section F be carefully read before operating the Main Power Equipment of this Portable Lubrication Unit (See page 10).

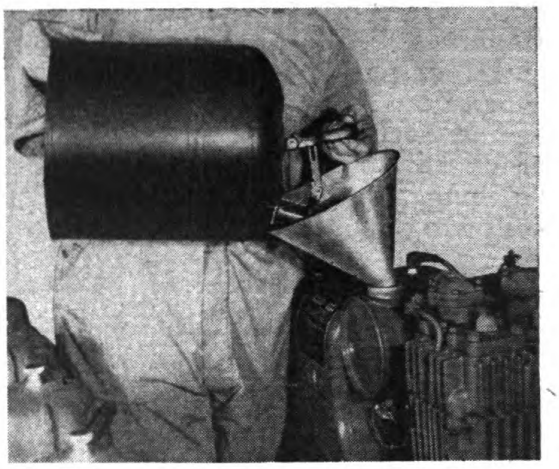


Figure 5
Filling Engine Fuel Tank

2. Fill the engine fuel tank with a good quality gasoline free from dirt and water (See Figure 5). The gasoline should have an octane rating of at least 67. (Tank capacity 1⅓ gal.)

3. CAUTION: Make sure that lubricant tank compartments are 100% clean, and then fill (See Figure 6) with CLEAN lubricants of the types indicated on the name plates. Keep tank covers tightly

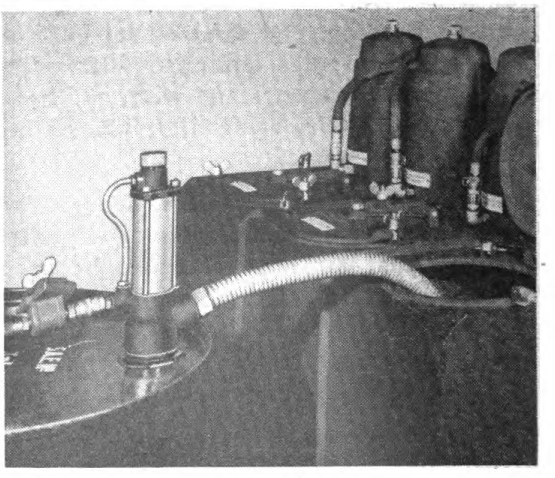


Figure 6
Filling Lubricant Tank (using Transfer Pump)

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To Prepare for Use (continued)

closed after filling so that no dirt or water can get into lubricant. Contaminated lubricant will not only damage the pumps, but will damage bearings being lubricated.

Before filling tank for the first time, it is suggested that, wherever possible, a powerful vacuum cleaner be used to remove any abrasives, dirt, filings, etc., that the tank may contain.

D.
HOW TO PREPARE MAIN POWER EQUIPMENT FOR COLD WEATHER OPERATION

1. Drain and refill crankcase of engine and compressor with proper grades of oil (See following Section F—pages 10 to 14).

2. To heat the lubricant tank during cold weather, remove the engine exhaust muffler (See Figure 7) and install asbestos covered flexible tubing leading from the exhaust elbow to the tank heating chamber. First screw tubing into engine exhaust elbow, screw flange onto lower end of tubing, and fasten flange to heating chamber inlet with two screws (See Figure 8). Use asbestos gasket under flange.

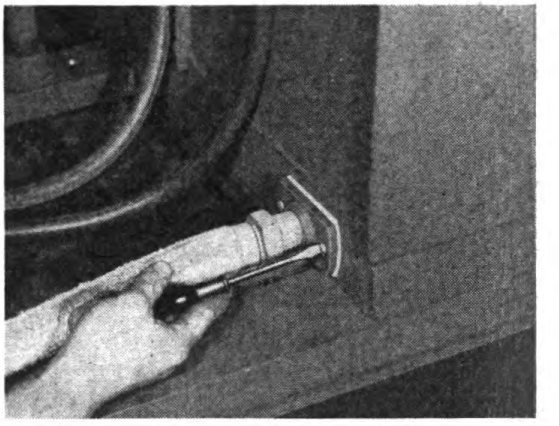


Figure 8
Fastening Exhaust Tube Flange to Tank Heating Chamber

E.
HOW TO USE MAIN POWER EQUIPMENT

1. Engine and Compressor Unit

a. Open the valve (See Figure 9) in the gasoline line.

b. Turn the magneto switch to the "ON" position (See Figure 10) by turning to right as far as possible.

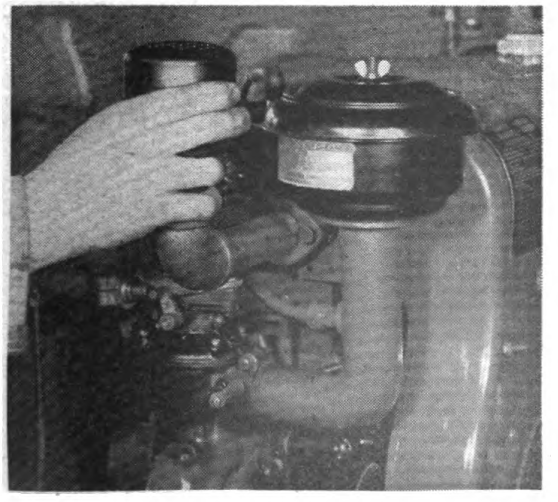


Figure 7
Unscrewing Engine Exhaust Muffler

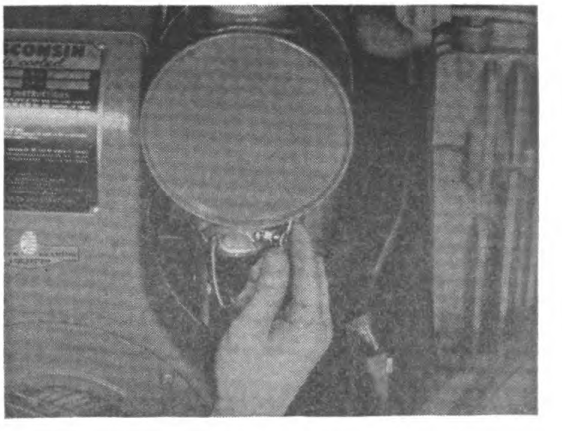


Figure 9
Opening Valve in Gasoline Line

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How to Use (continued)

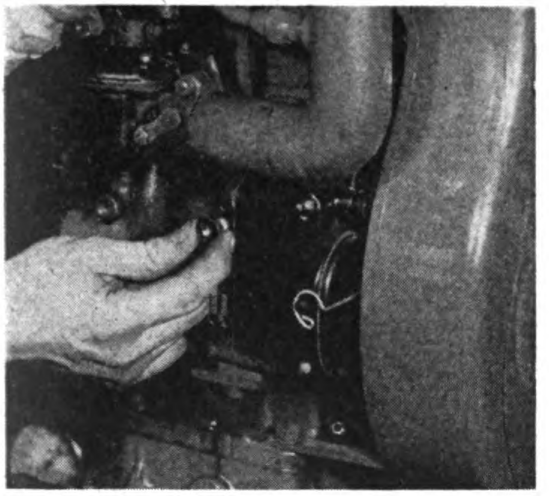


Figure 10
Turning Magneto Switch

c. Close choke on the engine carburetor air inlet horn by turning the lever down (See Figure 11). (The choke opens automatically after the engine starts.)

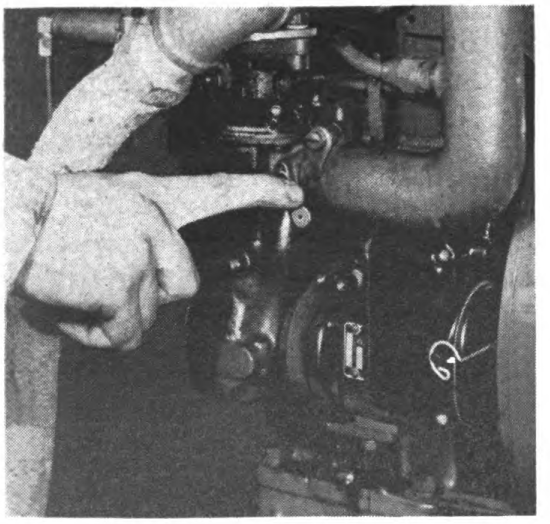


Figure 11
Closing Choke

d. Insert knot at end of starter rope in the notch in the starting pulley, and wind the rope on the pulley in a clockwise direction. Then pull briskly on the rope (See Figure 12) to turn the crankshaft. If the engine does not start on the first application of the starting rope, the operation should be repeated.

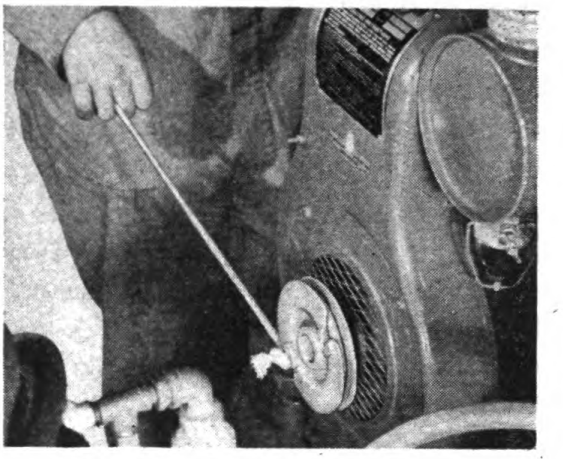


Figure 12
Pulling Starter Rope

If the choke on the carburetor accidently snaps open during cranking before the engine starts, the choke should again be closed (See Figure 11) for two or three turns of the crankshaft. Do not keep choke closed too long. If fuel begins to drip from carburetor, choke should be opened. More choking is necessary for starting the engine in cold weather than in warm weather.

e. Open valve at receiver (compressor tank) outlet (See Figure 13).

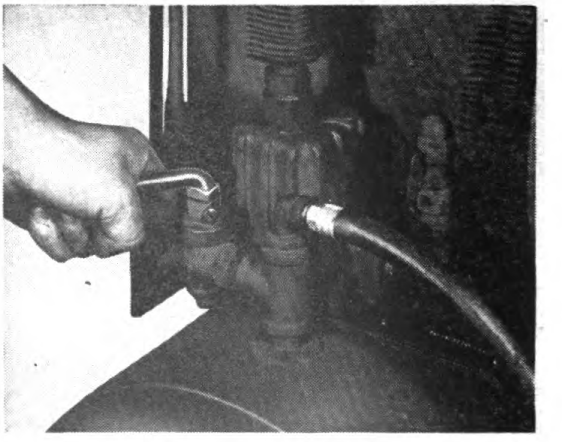


Figure 13
Opening Valve at Receiver Outlet

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How to Use (continued)

2. Lubricant Pumps and Delivery Hose

a. As air pressure in receiver is built up, the four pumps mounted in the lubricant tank will start to operate, and will continue until pressure is built up in the hose. The air compressor will automatically load when pressure in the receiver drops below 160 pounds per square inch (See gauge mounted on side of receiver). The amount of air pressure to the lubricant pumps may be reduced, if desired, by adjusting the air regulator (See Figure 14) installed in the main air line to pumps. A maximum of 150 pounds air pressure is recommended for efficient pump operation.

The entire operation of the lubricant pumps is controlled by the valves and meters at the ends of the grease hose coiled on the reels.

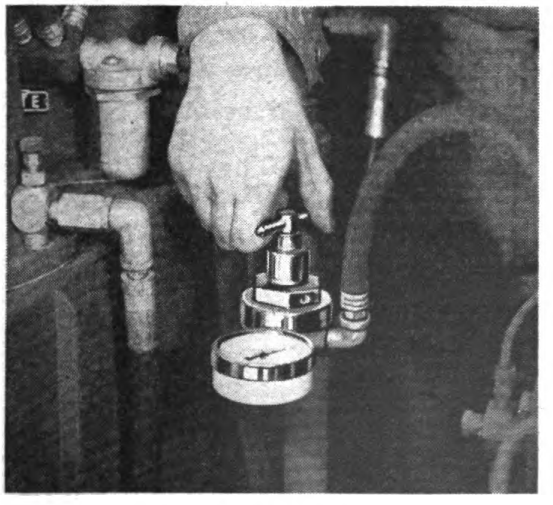


Figure 14
Adjusting Air Regulator

b. Before delivery hose can be uncoiled from reel, the lock pin must be pulled out. Note that arm must be turned to upright position before pin can be pulled out or pushed in (See Figure 15). The hose clamp is released from rim of reel by loosening large thumb nut (See Figure 16).

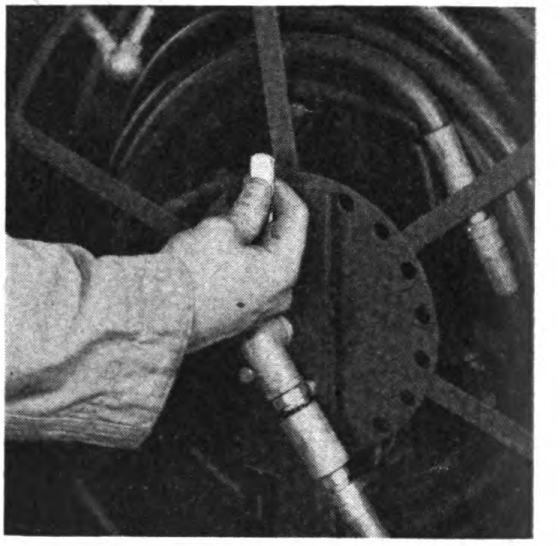


Figure 15
Pulling Out Reel Lock Pin

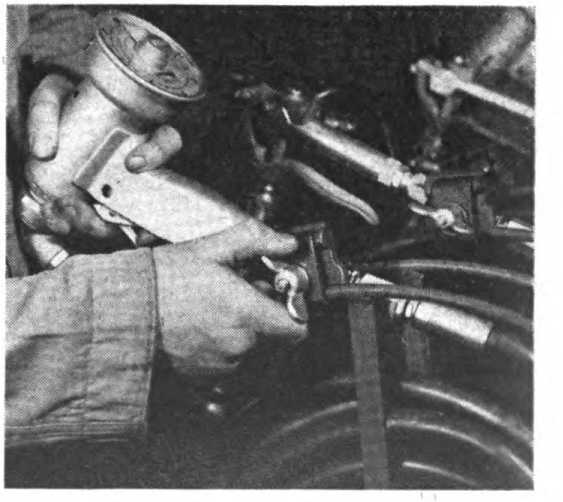


Figure 16
Releasing Hose Clamp from Rim of Reel

c. *TO FILL TRANSMISSION, DIFFERENTIAL,* or any housing requiring "gear" lubricant, turn meter knob back to zero (See Figure 17), remove gear case plug, insert the meter nozzle into the hole,

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How to Use (continued)

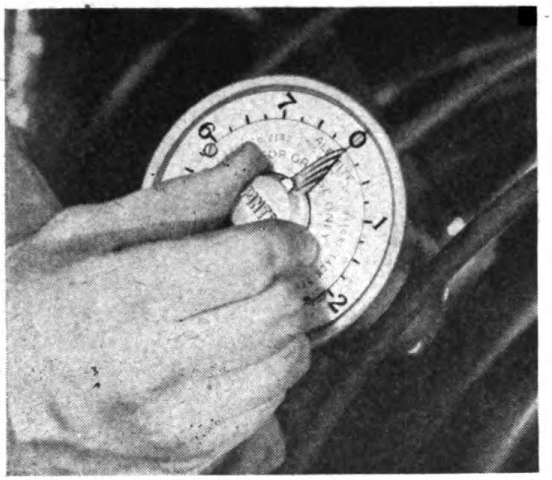


Figure 17
Turning Meter Knob back to Zero

and squeeze the trigger (See Figure 18). The trigger safety catch must be depressed with the forefinger at the same time the trigger is depressed.

The pump will operate and deliver lubricant to gear case as long as the trigger is held down. Be sure to replace plug after filling.

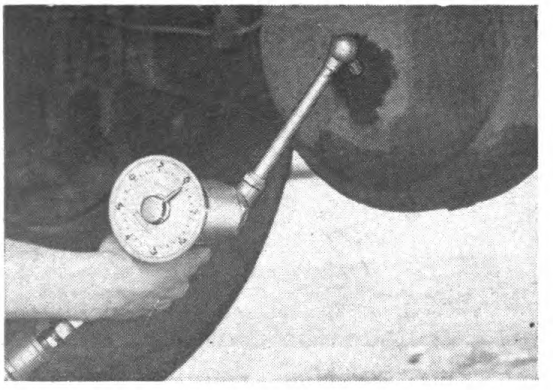


Figure 18
Filling Rear Axle Gear Case

d. *TO DISPENSE MOTOR OIL* to crankcase, use "oil" hose and meter assembly. The oil meter is operated in the same manner as the gear grease meter (See paragraph **c**), except that the nozzle tip must be loosened to allow free flow of oil (See Figure 19).

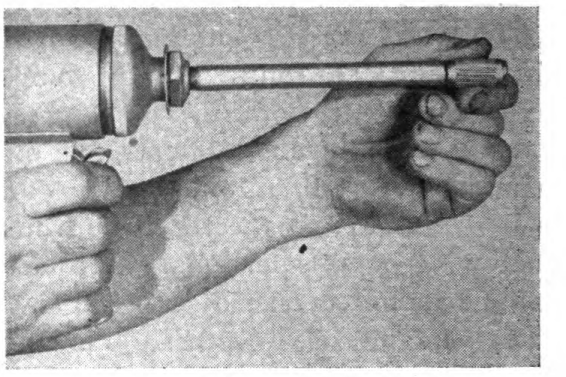


Figure 19
Loosening Nozzle Tip of Oil Meter

e. *TO APPLY "GENERAL PURPOSE CHASSIS LUBRICANT"* to bearings equipped with pressure fittings, such as track rolls of tractors, king pins, spring shackles, etc., use either or both of the high pressure control valves and hose assemblies. Nozzles, adapters, and whip end hose are provided for lubricating all types of grease fittings, as explained below.

IMPORTANT: The union joining nozzle or whip end hose to control valve *must be kept tightly engaged to permit passage of grease* through check valve at control valve outlet. Also make sure that union gasket (No. 48206) is in place.

(1) *To Service Hydraulic Fittings* (See Figure 20).

Engage the pipe extension with Hydraulic Coupling tightly to the control valve outlet. Clean the fitting with a rag. Push the Hydraulic Coupling onto the fitting and squeeze the control valve lever. This allows lubricant to be pumped into the bearing under high pressure. If only a

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How to Use (continued)

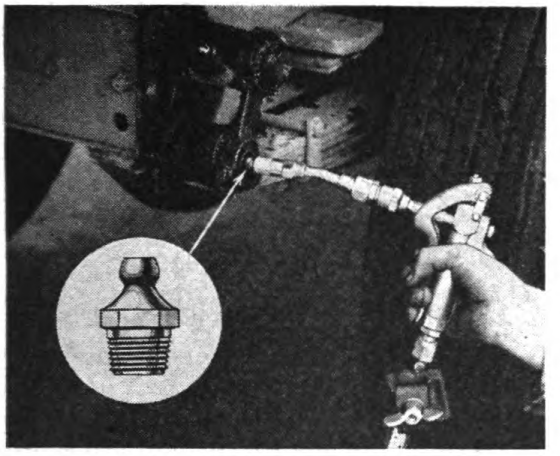


Figure 20
Lubricating Bearing Equipped with Hydraulic Fitting

small measured shot of grease is required, squeeze the control valve lever only part way until a definite stop is felt, then release the handle. The volume or size of this shot can be adjusted easily (See page 23). If a steady flow of lubricant is required, squeeze the lever all the way down. Practice of the "measured shot" feature will PREVENT WASTE of lubricant.

Always wipe the dirt off the coupling after removing from fitting.

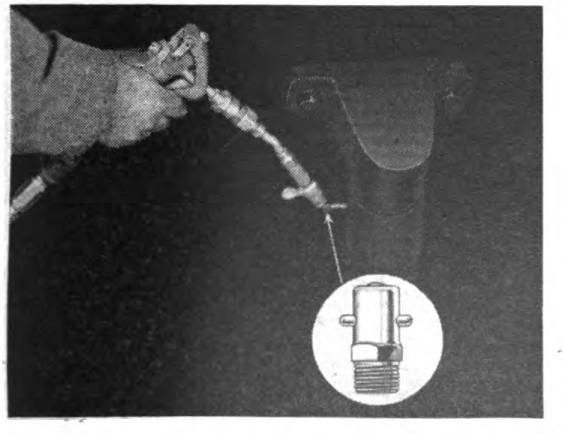


Figure 21
Lubricating Bearing Equipped with Pin Type Fitting

(2) *To Service Pin Type Fittings* (See Figure 21).

Attach Pin Type adapter to Pin Type fitting. Push the Hydraulic coupling onto the fitting of the adapter, and operate control valve as described above. There are two styles of Pin Type adapters furnished: (1) straight adapter shown in Figure 21, and (2) Z-type swivel adapter (not shown) for hard-to-reach fittings.

(3) *To Service Push Type Fittings* (See Figure 22).

Attach Push Type adapter to Hydraulic coupling by snapping the coupling onto the fitting at adapter inlet and pulling the sleeve back over the coupling. Hold adapter nozzle against Push Type fitting and operate control valve as previously described.

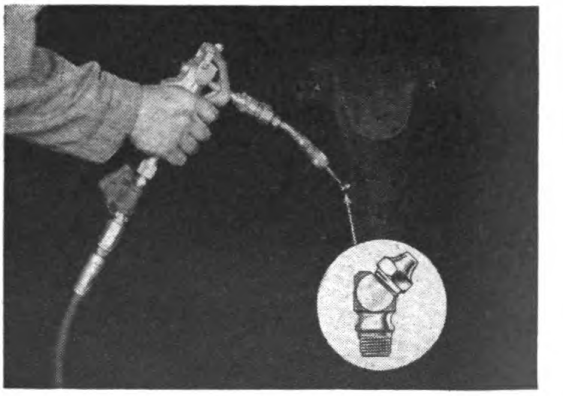


Figure 22
Lubricating Bearing Equipped with Push Type Fitting

(4) *To Service Button Head Fittings* (See Figure 23).

Engage whip end hose with Button Head coupling tightly to the control valve outlet. Hook the coupling over the fitting and operate the control valve as previously described.

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How to Use (continued)

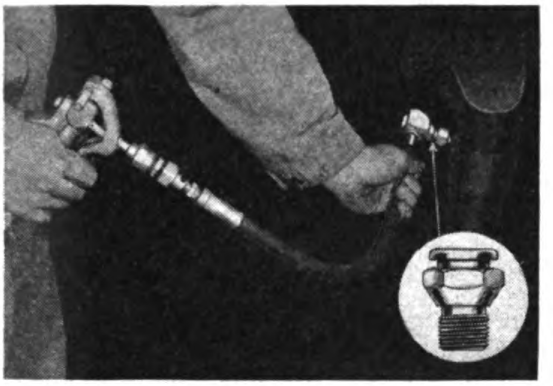


Figure 23
Lubricating Bearing equipped with Giant Button Head Fitting

Two whip end hose are furnished: one with Standard Button Head coupling, and one with Giant Button Head coupling.

f. TO INFLATE TIRES, fasten the combination air gauge and tire chuck to the air hose on reel. The quick detachable air coupling is easily engaged or disengaged by pulling back the knurled sleeve and turning (See Figure 97, page 38).

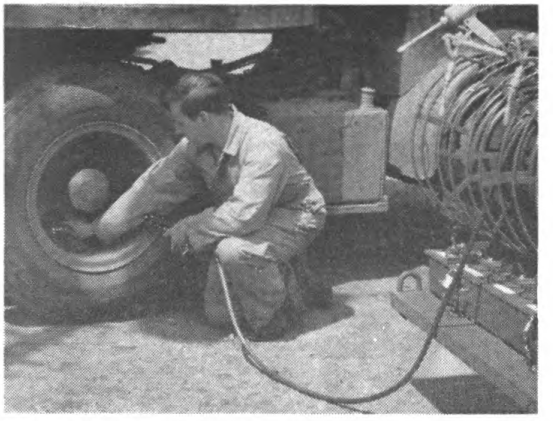


Figure 24
Inflating Tire

The air hose on reel may also be used for cleaning with air pressure by detaching the air gauge and attaching the small Flex-Tip blow gun (See Figure 28).

3. How to Stop Engine and Compressor Unit

a. When the use of the five hose assemblies on the reels is no longer required, stop the engine by turning the switch knob on magneto to the left (See Figure 10).

b. Close the valve (See Figure 9) in the gasoline line below the fuel tank.

c. After shutting off the engine, close the valve at the receiver outlet (See Figure 13). This allows air to bleed out of main air line to lubricant pumps, which in turn automatically relieves the grease pressure in the hose assemblies due to the action of the "Hose Miser" built into the pumps. Releasing the pressure in the hose assemblies when not in use will greatly increase their life.

F.
LUBRICATION OF MAIN POWER EQUIPMENT

1. Engine

a. Remove plug (See Figure 25) and fill the base of the engine

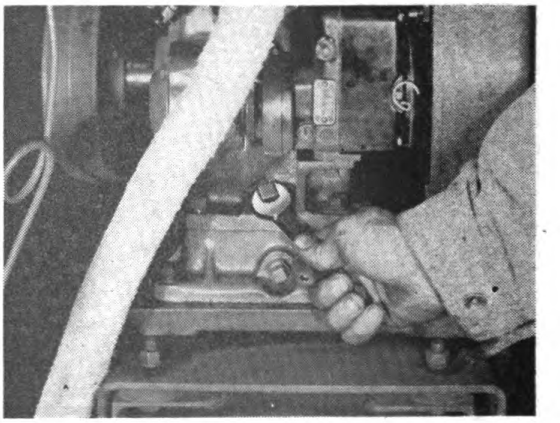


Figure 25
Removing Engine Oil Filler Plug

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Lubrication (continued)

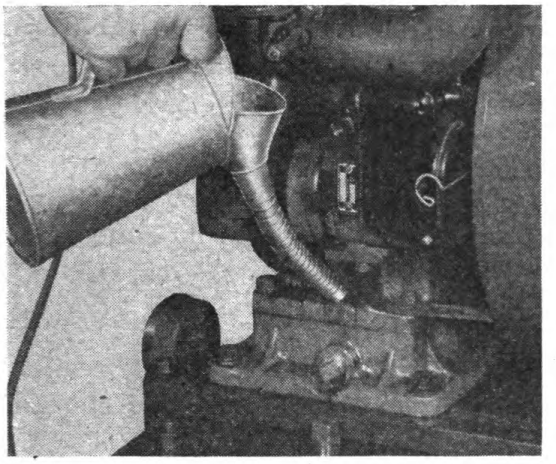


Figure 26
Filling Base of Engine with Oil

with high grade oil (See Figure 26) up to level of the filler hole. Approximately 1½ quarts required. Use S.A.E. 30 oil for temperatures above 40° Fahrenheit, and use S.A.E. 10 below 40°.

The old oil should be drained and fresh oil added after every 64 hours of operation. Under extremely dusty conditions the oil should be changed oftener. (The drain plug is located just below the filler plug—See Figure 25.)

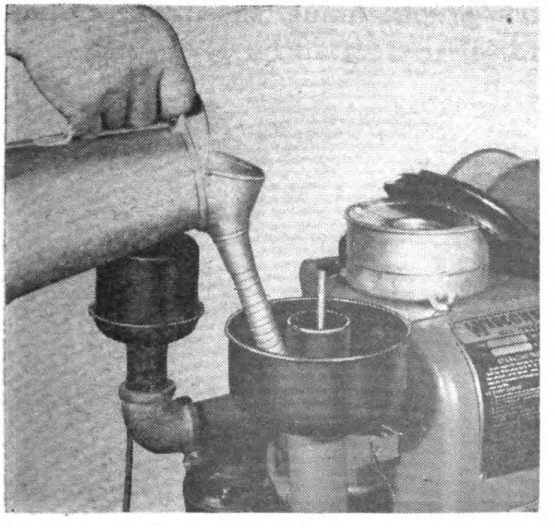


Figure 27
Filling Engine Air Cleaner with Oil

b. Fill engine air cleaner (See Figure 27) with S.A.E. 10 oil to indicated oil level. Keep oil to this level. Once each week (daily under very dusty conditions) remove cup and clean out old oil (See Figure 28). Refill to indicated oil level. Check gaskets and replace cleaner.

NOTE: Do not use air cleaner after cleaning with gasoline until thoroughly dry.

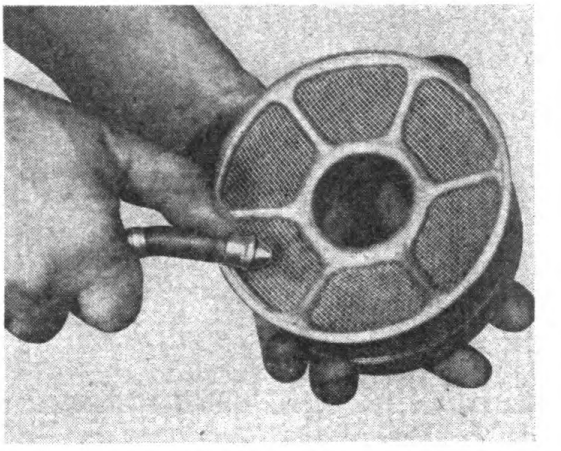


Figure 28
Blowing out Air Cleaner Cup after Washing in Gasoline

c. Once every 256 hours of operation, remove plug and fill magneto oiler to overflowing with S.A.E. 10 oil (See Figure 29).

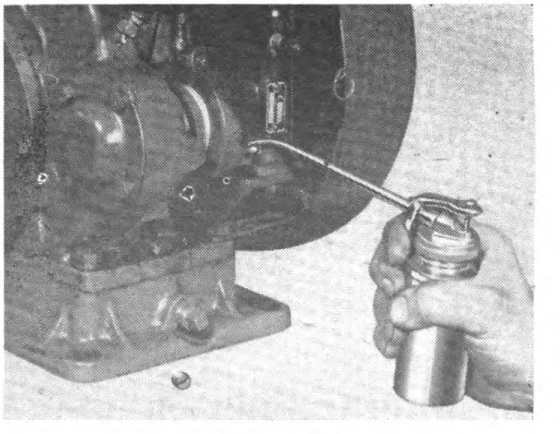


Figure 29
Filling Magneto Oiler

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Lubrication (continued)

d. After every 1024 hours of service it is necessary to relubricate the magneto cam oil pad. To do this, proceed as follows:

(1) Disconnect lead wire from magneto.

(2) Remove entire magneto from engine by removing two cap screws (See Figure 30).

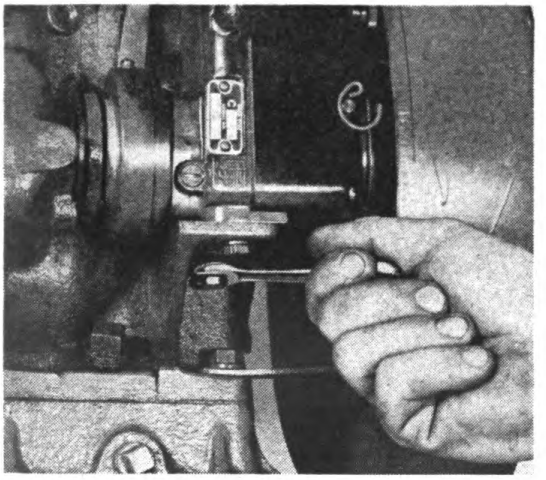


Figure 30
Removing Magneto Mounting Screw

(3) Remove hold-down spring and lift off breaker cover. Do not lose gasket.

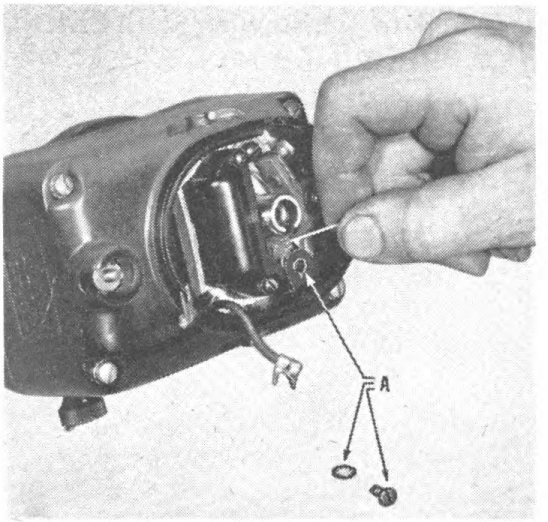


Figure 31
Removing Magneto Cam Oil Pad

(4) Remove breaker arm spring terminal screw and lock washer (See "A" Figure 31).

(5) Remove oil pad with a large pin or similar object (See Figure 31). Lubricate pad by squeezing and working S.A.E. 90 Gear Lubricant into it.

(6) Replace pad and breaker arm spring terminal screw (Refer to Section G-1-b, Page 14).

e. On engines with type of automatic throttle shown in Figures 32 and 33, it is advisable to lubricate the cup leathers inside the throttle after every 1024 hours of service to prevent them from becoming hardened. To do this proceed as follows:

(1) Detach tubing from automatic throttle at "A" Figure 32.

(2) Loosen cylinder bracket screw (See Figure 32) and turn cylinder so that elbow ("B" Figure 33) is upright.

CAUTION: Do not move cylinder in or out of bracket, as this may disturb proper idling speed of engine. (Refer to Section I-1-f, Page 18.)

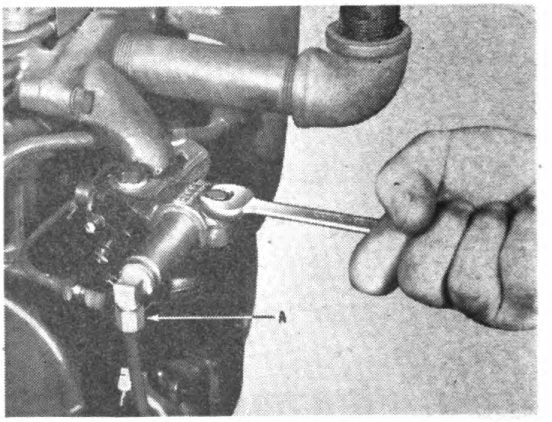


Figure 32
Loosening Cylinder Bracket Screw

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Lubrication (continued)

(3) Inject about 10 drops of light oil (preferably Neatsfoot Oil) inside throttle through elbow (See Figure 33) and move plunger in and out several times to work oil into leathers.

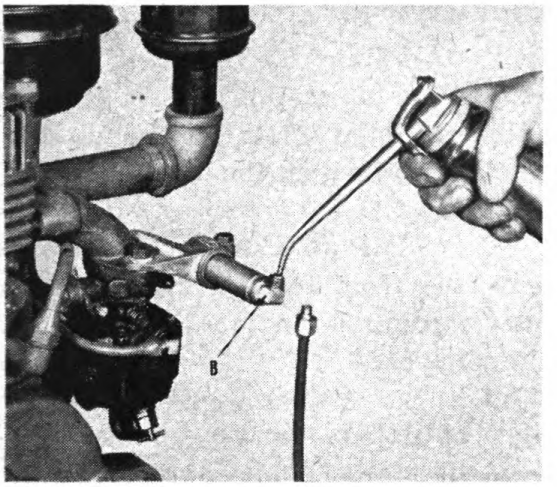


Figure 33
Oiling Plunger Leathers of Throttling Device

(4) Turn cylinder back to its original position, making sure that it is not moved in or out of bracket. Then tighten screw (See Figure 32).

(5) Attach tubing to elbow at automatic throttle inlet.

NOTE: For full information regarding throttle adjustment see Section I-1-f-(2), Page 19.

2. Compressor

Remove bayonet oil gauge (See Figure 34) and fill the compressor crankcase (See Figure 35) to full level mark on oil gauge with high grade oil. Approximately two quarts required. Use S.A.E. 30 oil at temperatures above 32° Fahrenheit; use S.A.E. 10 oil from plus 32° F. to 0° F., and dilute S.A.E. 10 oil with 20% kerosene at temperatures below 0° F.

Watch condition of oil, and when it becomes dirty clean out crankcase

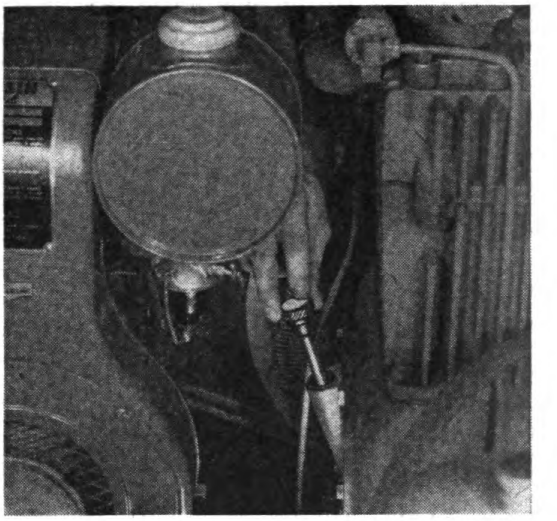


Figure 34
Removing Compressor Oil Gauge

and refill with new oil. The time for this varies with operating conditions. (Normally required about every 90 days or approximately 512 hours operation.) Drain plug is located directly below the three-way valve at side of crankcase opposite to compressor flywheel.

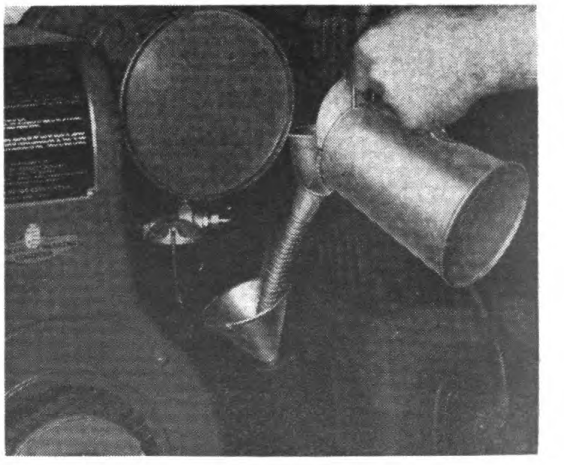


Figure 35
Filling Compressor Crankcase with Oil

3. Lubricant Pumps

The oil for the air motors of the four lubricant pumps is fed through the air lines to the pumps. Remove

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Lubrication (continued)

screw and fill reservoir oiler (See Figure 36) installed in main air line to pumps with S.A.E. 10 motor oil. This oiler must be refilled every two or three days. If there is pressure in receiver the valve at receiver outlet (See Figure 42) must be shut off before removing screw.

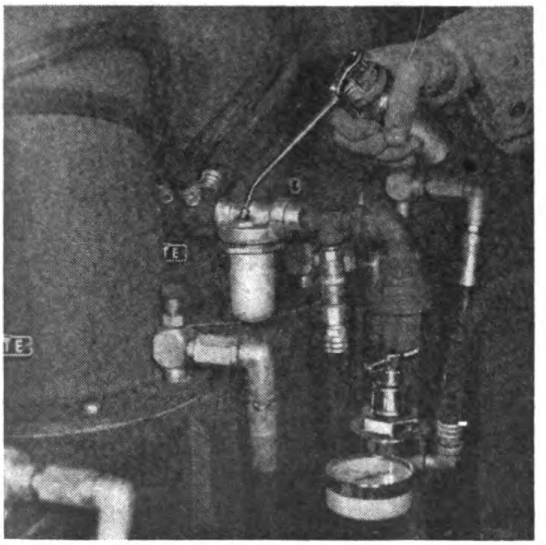


Figure 36
Filling Oiler for Lubricant Pumps

4. Reels

Oil the axle bearing of the hose reels occasionally (See Figure 37).

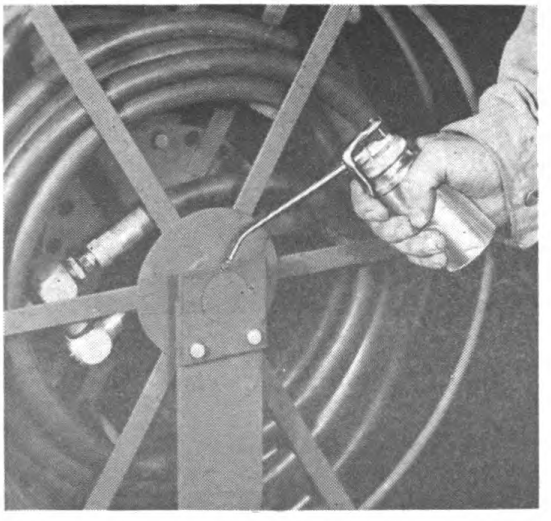


Figure 37
Oiling Reel Axle

G.

SERVICE ADJUSTMENTS

1. Engine

a. The engine spark plug should be inspected, cleaned, and gap set at .025" after each 1024 hours of service.

b. While the magneto is removed for lubrication of cam oil pad (Refer to Page 12), it is also advisable to clean and adjust the breaker points as follows:

(1) Points should be smooth and free from foreign matter. Lacquer thinner is an ideal cleaner for this purpose.

(2) Adjust breaker points to .015" *when fully opened* by first loosening the fixed contact screw (See Figure 38). Adjust gap to .015" by turning the small eccentric screw (See Figure 39). The use of Wico Tool X5449 is suggested to adjust the alignment so that surfaces of both contacts meet squarely.

After adjustment, tighten the fixed contact screw. Replace breaker cover gasket, cover, and hold-down spring.

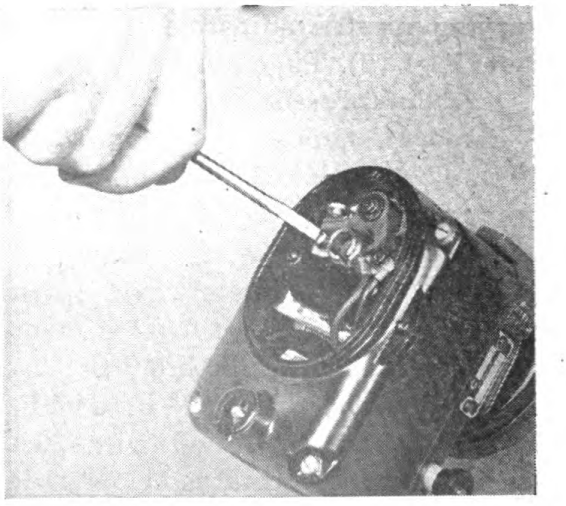


Figure 38
Loosening Fixed Contact Screw

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Service Adjustments (continued)

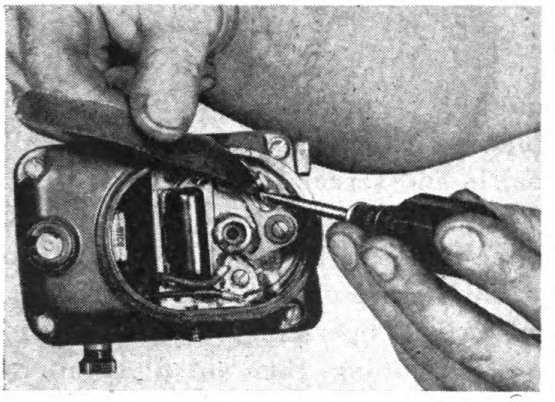


Figure 39
Adjusting Gap to .015" by Turning Eccentric Screw

Reassemble magneto to engine with two cap screws (See Figure 30), and attach lead wire to magneto.

c. Clean fuel filter (See Figure 40) when it appears dirty. The shut-off valve ("A" Figure 40) should be closed before removing bowl.

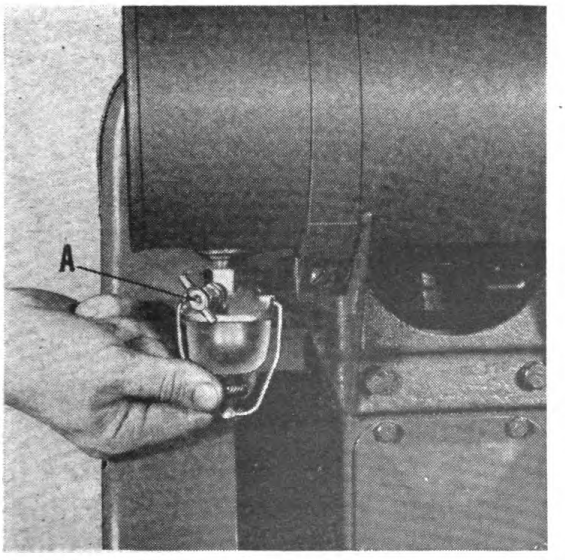


Figure 40
Removing Filter Bowl

d. Keep exterior of engine, especially cylinder and head fins, thoroughly clean to prevent overheating.

CAUTION: Never operate the engine with any part of the air shroud removed, as this will allow it to overheat and score. The air shroud is absolutely necessary to direct the air flow so the engine is properly cooled.

Cylinder head bolts should be kept sufficiently tight (but not too tight).

e. Tension of V-belts and alignment of engine and compressor pulleys should be checked periodically.

(1) Belt adjustment is made by loosening four engine slide rail clamp screws (See Figure 41). Engine may then be moved toward or away from compressor. Belts should be tight enough to eliminate slipping, but not too tight, putting an excessive load on the engine and compressor bearings.

(2) When belt tension is adjusted it is important that the engine and compressor pulleys be perfectly realigned. To do this it may be necessary to loosen engine pulley set screw ("A" Figure 41). A small open end wrench is provided with unit for this purpose.

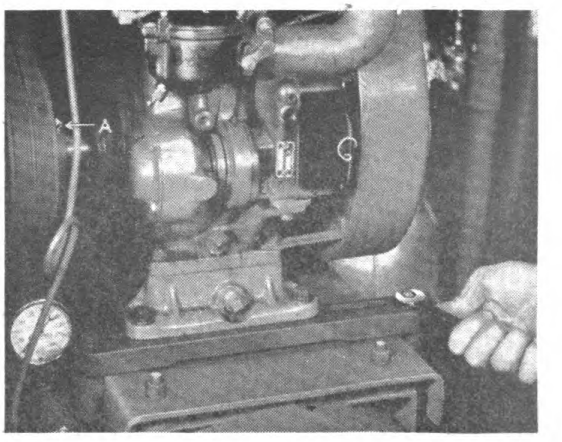


Figure 41
Loosening Engine Slide Rail Clamp Screws

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Service Adjustments (continued)

2. Compressor

a. Once each week close valve at receiver outlet (See Figure 42) and if air pressure gauge shows an excessive drop in receiver pressure, check entire unit carefully for leaks.

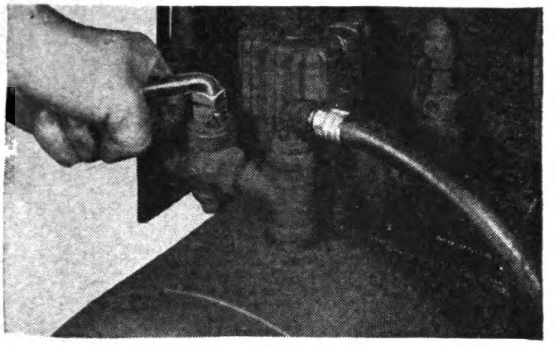


Figure 42
Closing Valve at Receiver Outlet

b. Drain moisture from receiver weekly by opening valve (See Figure 43) at rear of unit. Allow valve to remain open until air is dry and all moisture has drained.

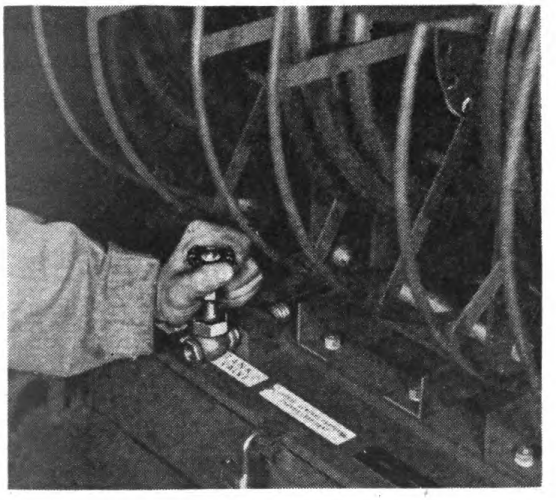


Figure 43
Opening Receiver Drain Valve

c. Compressor air intake filter and muffler should be examined weekly. If dirty it should be completely disassembled and cleaned as follows:

(1) Remove screw ("A" Figure 45).

(2) Remove felt and thoroughly clean with gasoline or replace with new felt. Also wash all baffle and screen inserts in gasoline. The felt may be dried with air by attaching small Flex-Tip Blow Gun to air hose on reel (See Figure 44).

Normal operating conditions require cleaning this air filter about every 60 days. If used in dirty or dusty location, it must be done more frequently. *It is very important that the filter be kept clean,* as a dirty filter will greatly impair the efficiency of the compressor.

NOTE: Do not use air cleaner after cleaning with gasoline until thoroughly dry.

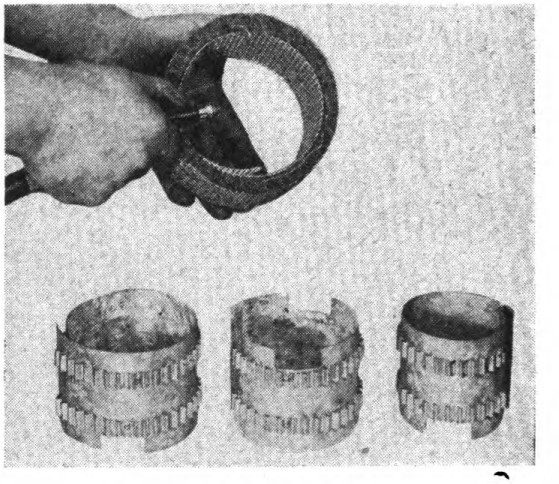


Figure 44
Drying Air Filter Felt with Compressed Air (after cleaning)

(3) Use extreme care in tightening cap screw ("A" Figure 45) when reassembling filter. Failure to do so will result in breakage of outer cap.

d. The compressor crankcase breather opening ("B" Figure 45) should have at least $\frac{1}{32}$" movement. Clean weekly to make sure that

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Service Adjustments (continued)

crankcase receives proper ventilation.

e. It is important that all cylinder and head fins, as well as compressor intercooler fins, be kept thoroughly clean to permit efficient operation. Should unit be allowed to get covered with grease and dirt, it will run excessively hot.

f. All cylinder head bolts, intercooler screws, etc., should be examined periodically to see that they are sufficiently tight. Caution must be used, however, not to draw them too tight with a long handled wrench.

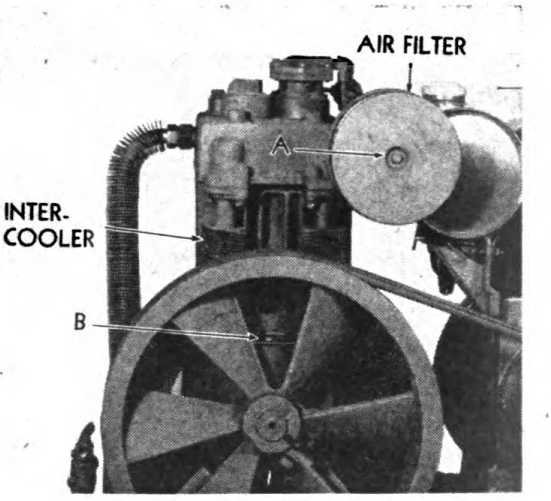


Figure 45
Side View of Compressor

H. Periodic Lubrication and Maintenance Summary

Every 8 Hours of Operation

1. Fill engine fuel tank with gasoline having octane rating of at least 67. Be sure gasoline is free from dirt and water.
2. Check oil level in crankcase of *both engine and compressor*. Add oil if necessary.
3. Refill reservoir oiler in main air line to pumps with S.A.E. 10 oil (See Figure 36).
4. Check lubricant level in three tank compartments. Refill if necessary. Use CLEAN lubricant. Make sure covers are kept tightly closed.

Every 64 Hours of Operation

1. Drain and refill engine crankcase with fresh oil up to level of filler hole (oftener under extremely dusty conditions). Approximately 1½ quarts required. Use S.A.E. 30 oil for temperatures above 40° F.; below 40° F. use S.A.E. 10 (See Figure 26).
2. Clean and refill engine air cleaner with S.A.E. 10 oil to indicated oil level (oftener under extremely dusty conditions) (See Figure 27).
3. Examine compressor air intake filter. If dirty, disassemble and clean (See Figure 44).
4. Clean breather opening ("B" Figure 45) of compressor crankcase to make sure crankcase has proper ventilation.
5. Check V-Belts for tension and pulleys for proper alignment.
6. Drain moisture from air receiver by opening drain valve (See Figure 43).
7. Check receiver for air leakage by closing receiver outlet valve and observing pressure gauge.
8. Oil Schrader Air Chuck Gauge at indicator-bar channel, at the trigger, and in the marked oil hole above air inlet.

Every 256 Hours of Operation

1. Fill magneto oiler to overflowing with S.A.E. 10 oil (See Figure 29).

Every 512 Hours of Operation

1. Drain and refill compressor crankcase with fresh oil (oftener under extremely dusty conditions). Use S.A.E. 30 oil at temperatures above 32° F.; below 32° F. use S.A.E. 10; below 0° F. dilute S.A.E. 10 oil with 20% kerosene (See Figure 35).
2. Remove and clean fuel filter and sediment bowl (See Figure 40).

Every 1,024 Hours of Operation

1. Re-lubricate magneto cam oil pad with S.A.E. 90 gear lubricant (See Figure 31).
2. Clean and adjust breaker points to .015" gap (fully opened). (See page 14.)
3. Clean spark plug and adjust gap to .025".

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I.

MINOR TROUBLES AND REPAIRS OF MAIN POWER EQUIPMENT

1. Engine

What to do if engine will not start or continue to run properly after starting:

a. Check fuel supply. If gasoline in tank, make sure valve below tank is open (See Figure 9). Clean fuel filter (See Figure 40). Blow through gasoline line to carburetor to make sure that it is open.

b. Check for spark by disconnecting cable from spark plug and (with hand on insulation) holding cable terminal 1/8" from plug terminal. Turn engine over with starting rope. If the spark jumps gap the ignition system, with the exception of spark plug, is O.K. If no spark, check ignition cable (paragraph **d**) and check magneto points (paragraph **e**).

c. Check spark plug for burned or fouled points, cracks, and leaks. Gap should be .025". Replace if ceramic is cracked or points are badly burned. If plug is moist or sticky, it is usually caused by too rich a fuel mixture being delivered by the carburetor (paragraph **f**).

d. Check cable from spark plug to magneto to make sure connections are tight and insulation is in good condition. If cable is soaked with oil or water it may interfere with ignition. Replace if defective.

e. Check magneto breaker points for proper gap (.015") and to make sure they are clean and smooth (See Section G-1-b, Page 14).

f. Adjust carburetor (after engine is well warmed up).

(1) If engine does not run smoothly at the normal idling speed (approximately 1100 R.P.M.), manually open the throttle until a minimum steady idling speed is reached. Turn low speed adjustment (See Figure 46) gradually to right or left until the engine runs as steady and fast as this throttle position will permit. This adjustment operates on air so that screwing it IN gives a richer mixture; OUT a leaner one. If after adjusting the engine idles too fast or too slowly, the desired speed (ap-

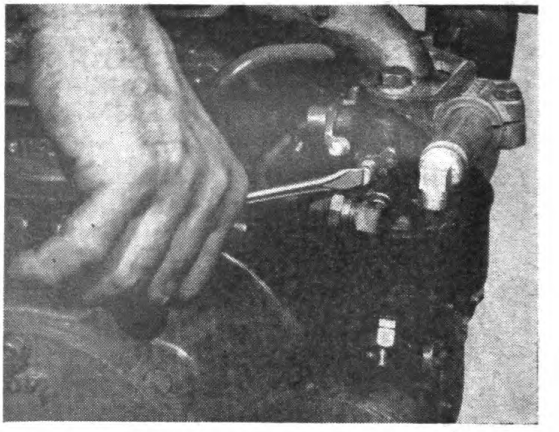


Figure 46
Adjusting Carburetor Idle Needle Valve

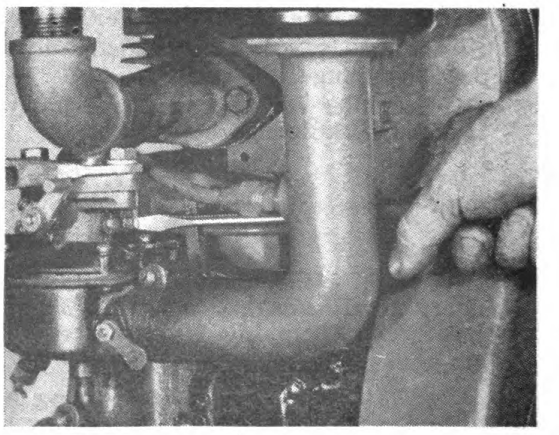


Figure 47
Adjusting Throttle Stop Screw

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Minor Troubles and Repairs (continued)

proximately 1100 R.P.M.) can be obtained by turning throttle stop screw (See Figure 47). If a satisfactory adjustment cannot be obtained, the carburetor should be disassembled and cleaned (refer to Section A-2 of Maintenance Manual, Page 43).

(2) When adjustment of throttle stop screw is changed it may also be necessary to change setting of the automatic engine throttling device. To do this, first manually unload the compressor by turning wing nut on VD Pilot clockwise (See Figure 48). When the compressor is unloaded the plunger (See Figure 49) of the automatic throttling device will be in the extreme outer position holding the carburetor arm in idling position. The manner in which this adjustment is made depends upon the type of automatic throttling device used on the particular unit being serviced:

(a) The straight plunger type illustrated is adjusted by loosening screw (See Figure 32) and moving cylinder in or out of bracket, so that when plunger is in outer position it will hold arm to idle position without too great pressure. Then tighten screw.

NOTE: Before making this adjustment be sure that plunger of automatic throttling device is in extreme outer position. If air leaks past piston inside throttling device, causing plunger to not have the proper amount of travel to idle engine when under no load, oil should be injected through elbow to soften piston cup leathers. (See Figure 33.) If, after softening cup leathers, the throttling device still fails to function satisfactorily, the complete assembly should be replaced.

(b) On automatic throttling devices having plunger with threaded end and two adjustment nuts, the setting is made by adjusting nuts so that with plunger in extreme outer position, there is 1/32" clearance between nut and carburetor arm. This clearance is very important as, if no clearance is allowed, plunger will be held off its seat and air will leak out around stem of plunger.

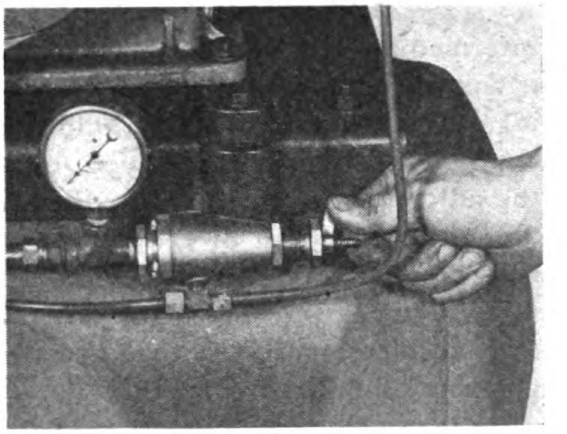


Figure 48
Manually Unloading Compressor

IMPORTANT: Adjustment of automatic throttling device is to be made only when there is air pressure in cylinder.

After adjustment is made, back off wing nut on VD Pilot (See Figure 48) at least one thread away from hexagon screw.

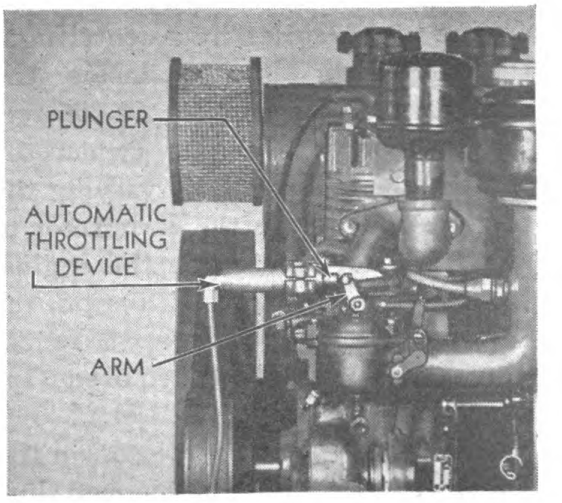


Figure 49
Engine Throttling Device

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Minor Troubles and Repairs (continued)

(3) The fuel-air mixture for intermediate and high engine speeds is controlled by an adjustable metering jet. To adjust, manually hold the engine throttle about ⅓ open, turn the adjustment screw in (See Figure 50) until the speed of the engine is noticeably cut down, then turn the screw out slowly until the fastest and steadiest speed for that throttle position is obtained.

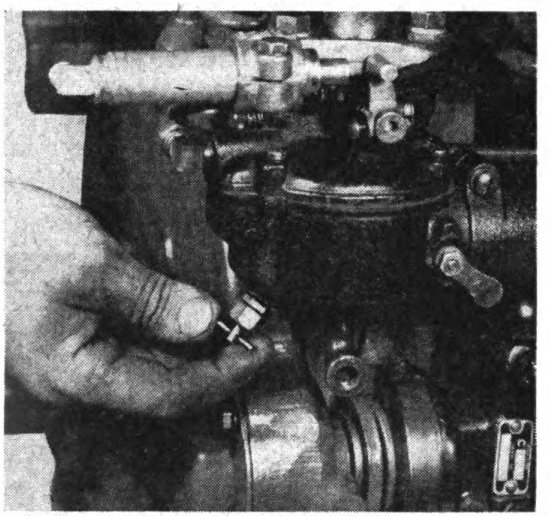


Figure 50
Adjusting Metering Jet Screw

g. The maximum speed of the engine is controlled by a centrifugal type governor located inside the crankcase of the engine. It controls the speed of the engine (when the compressor is loaded) by varying the throttle opening on the carburetor to suit the load imposed on the engine. In order to give close regulation, the governor spring (See Figure 51) must be suited to the speed required (approximately 1800 R.P.M.). The proper spring to use is Wisconsin No. PM-141. It should be hooked into hole No. 1 or 2 in governor lever.

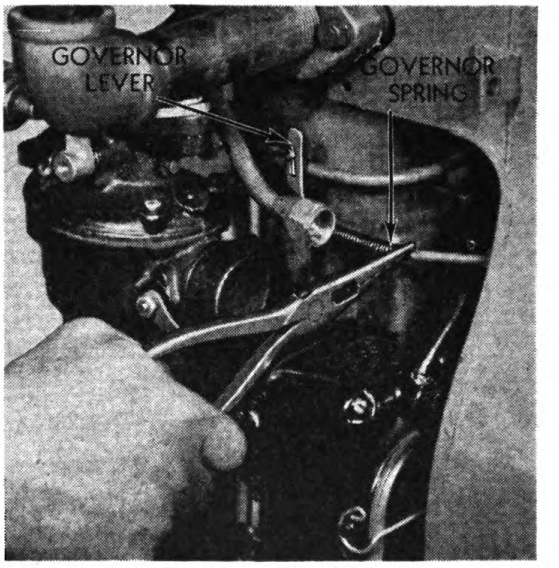


Figure 51
Removing Governor Spring

h. *If engine overheats, it may be caused by*

(1) Too rich or too lean a mixture (Refer to preceding paragraph f-1, Page 18).

(2) Grease or dirt on the radiating fins of cylinder and head. KEEP ALL PARTS OF ENGINE CLEAN.

(3) Operating engine with air shroud (or any part of air shroud) removed. The air shroud is absolutely necessary to direct the air flow so the engine may be properly cooled.

(4) Lack of lubrication (Refer to Section F, Page 10).

2. *Air Compressor*

a. *What to do if compressor is inefficient:*

(1) Be sure that engine is operating properly and developing sufficient speed (Refer to previous Section I-1, Page 18).

(2) Check V-belts for slip-

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Minor Troubles and Repairs (continued)

page (Refer to Section G-1-e, Page 15).

(3) Check for air leaks in fittings and hose.

(4) Air intake filter may be clogged with dirt (Refer to Section G-2-c, Page 16).

(5) Dirt may have lodged between the compressor valve discs and seats (Refer to Maintenance Manual—Section B-2-a, Page 62).

(6) Lack of lubrication (Refer to Page 13) or allowing fins of cylinder, head, and intercooler to become covered with dirt and grease, will cause compressor to overheat. Also be sure crankcase breather opening is kept clean (See Section G-2-d, Page 16).

b. *What to do if compressor does not automatically load (start to pump air) when pressure in receiver drops below 160 pounds (approx.), or does not unload when pressure reaches 175 pounds (approx.).*

(1) When compressor is in operation make sure that wing nut ("A" Figure 52) of VD Pilot is far enough away from hexagon screw to permit free movement.

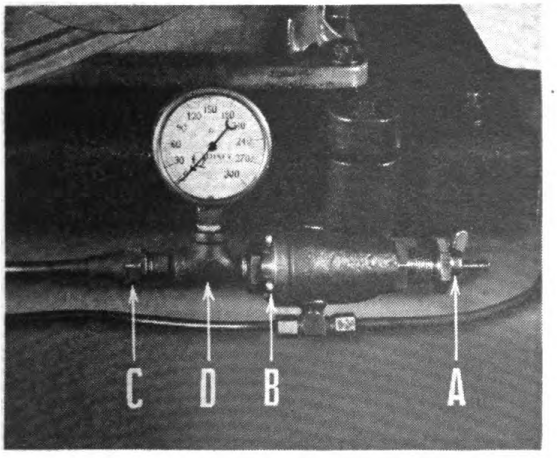


Figure 52
VD Pilot Unloader

(2) Make certain that screws ("B" Figure 52) are tight. If loose they will permit air pressure to escape and compressor will not unload properly.

(3) Bleed air from receiver (See Figure 43), disconnect tubing at "C" Figure 52, unscrew air gauge from tee, and remove tee ("D" Figure 52) from VD Pilot. Now unscrew plug ("E" Figure 53) and remove screens ("F" Figure 53) and felt ("G" Figure 53).

If felt and screens are clogged with dirt, wash thoroughly with gasoline or replace. Make sure that tubing leading from receiver to VD Pilot is entirely open and clean. Reassemble.

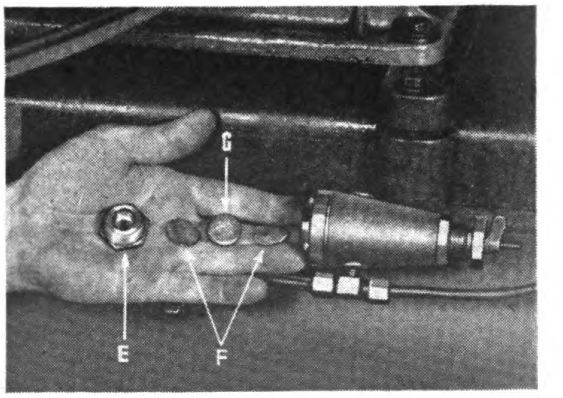


Figure 53
Felt and Screens removed from VD Pilot Unloader

(4) Check three-way valve (See Section B-2-e of Maintenance Manual, Page 69).

3. Lubricant Pumps

a. *What to do if lubricant pumps are sluggish. (Usually caused by restricted air flow.)*

(1) Check air gauge in main air line to pumps to see that pressure is above 100 pounds.

(2) Check the air couplings

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Minor Troubles and Repairs (continued)

at compressor outlet and at pump inlets. If the standard tire chuck sealing washer has deteriorated it will not allow sufficient volume of air to enter the pump air motor. Replace worn coupling washers ("A" Figure 54).

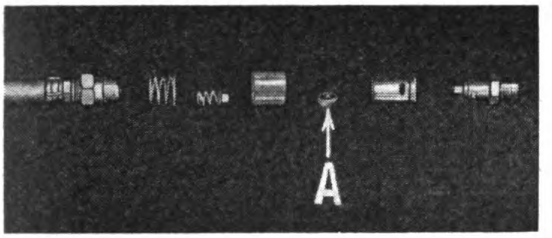


Figure 54
Air Coupling Disassembled

(3) In cold weather some grades of lubricants are extremely stiff and slow down the operation of the pump slightly. (Refer to Section D-2, Page 5, for method of heating lubricant tank.)

b. *What to do if pumps operate continuously without building pressure or delivering lubricant.*

(1) Check to see if there is lubricant in the tank.

(2) Check the lubricant to be sure that it has not channeled. Lubricant must surround the foot valve of the pump.

4. Control Valve and Hydraulic Coupling

a. *What to do if grease leaks out the end of the Hydraulic coupling when on a fitting.*

(1) Be sure leak is not due to a damaged fitting. If so, replace fitting.

(2) Remove end sleeve of coupling (See Figure 55). Use small pipe wrench or pliers on sleeve while holding the hex end of coupling in a vise or wrench.

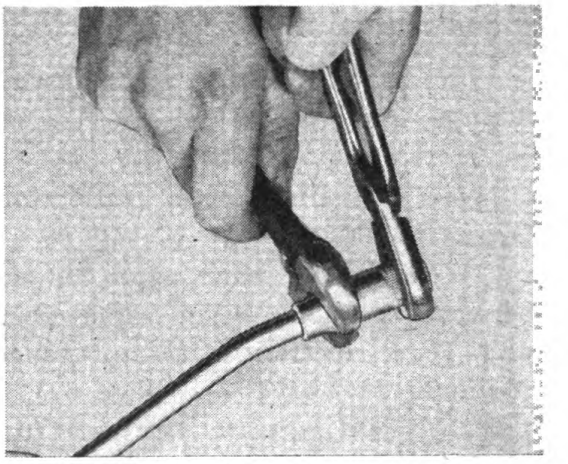


Figure 55
Removing Coupling Sleeve

(3) Remove coupling jaws and nozzle tip from sleeve. Examine jaws and tip for nicks and wear, and replace if necessary.

(4) To replace the three jaws in the coupling sleeve, first place the jaws in position on the nozzle tip and drop sleeve over the jaws (See Figure 56). Then replace sleeve on coupling body and tighten.

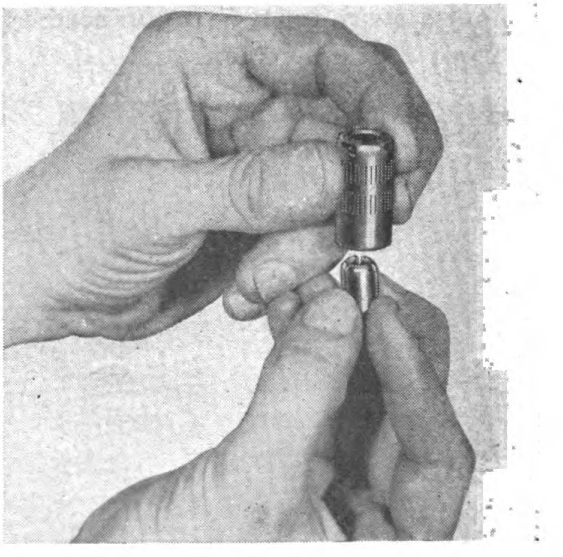


Figure 56
Placing Jaws and Tip inside Sleeve

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Minor Troubles and Repairs (continued)

b. *How to readjust control valve if single shot adjustment delivers either too much or too little lubricant.*

(1) Loosen lock nut (See Figure 57), but do not disconnect hose from the control valve.

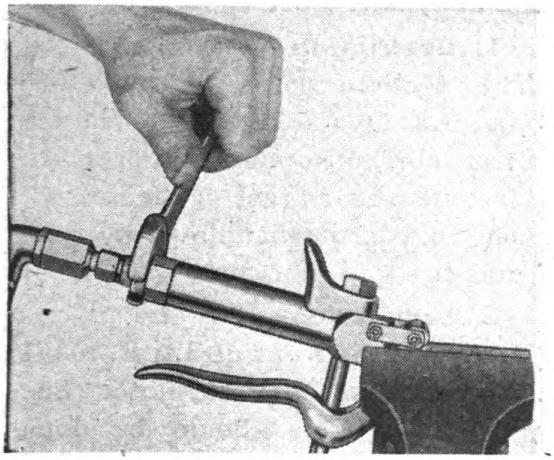


Figure 57
Loosening Bottom Lock Nut

(2) While there is grease pressure in the hose turn the adjusting screw (See Figure 58). Turning the adjusting screw to the right cuts down the amount of the single shot delivered; turning this screw to the left increases the amount of lubricant delivered.

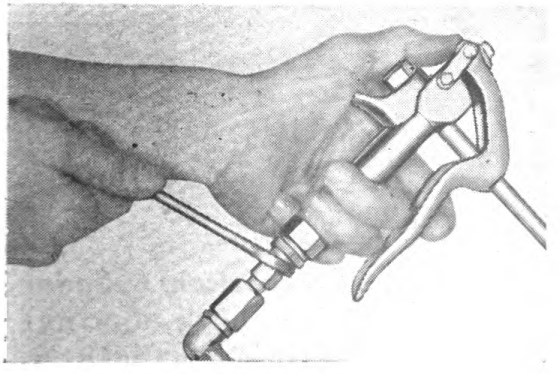


Figure 58
Adjusting Control Valve

(3) Tighten lock nut (See Figure 57). Hold adjustment screw in place while tightening lock nut.

c. *If control valve lever is too loose,* loosen top lock nut and turn down set screw until there is 1/8" clearance at "A", Figure 59.

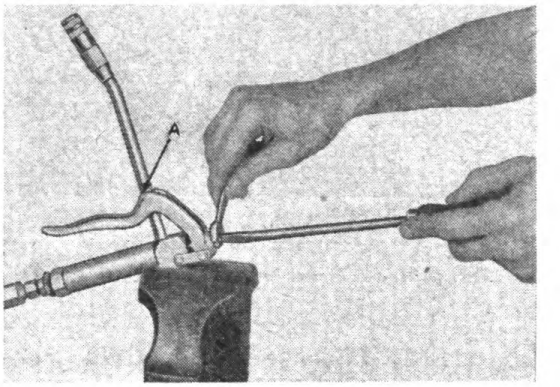


Figure 59
Adjusting Lever

d. *If no lubricant is delivered through nozzle or whip end hose when lever is depressed (and there is grease pressure in hose),* make sure that union is tightly engaged. This is necessary to open the shut-off valve at the control valve outlet.

5. Swivels

(Swivels are located at lubricant pump outlets, hose reel inlets, and between ends of delivery hose and meters or control valves.)

a. *What to do if lubricant leaks at swivel joints:*

(1) Detach hose from swivel (See Figure 60) and unscrew swivel from pump, reel, or valve, whichever the case may be.

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Minor Troubles and Repairs (continued)

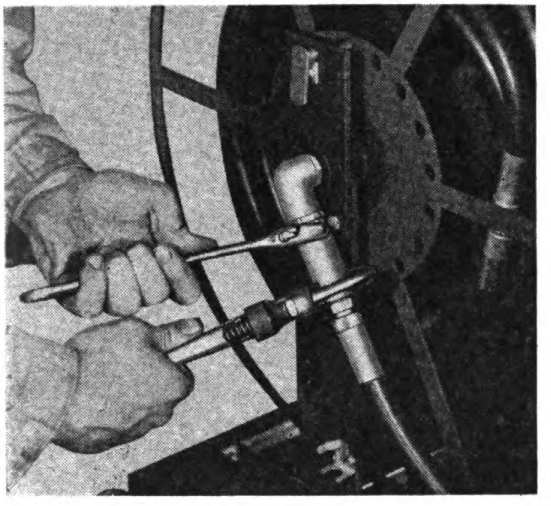


Figure 60
Detaching Hose from Swivel at Reel Inlet

(2) Disassemble swivel, replace "V" leathers (See Figure 61), and reassemble. Be sure that "V" leathers and washers are assembled in correct position as illustrated.

NOTE: When swivel is removed from reel inlet, the "V" leathers and washers will probably stay inside reel hub, but can easily be removed with a small screwdriver.

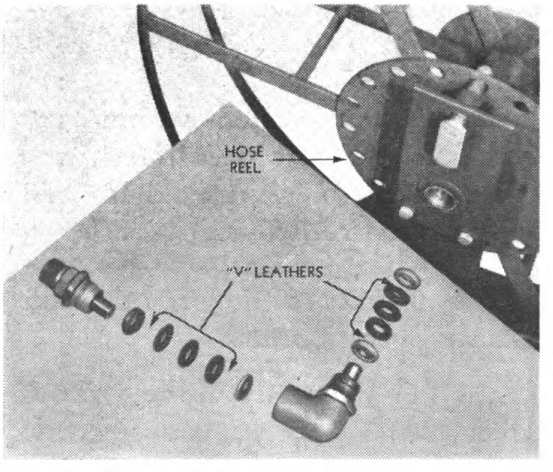


Figure 61
Swivel removed from Reel Inlet

J. MODEL 6060 ONE-POUND LUBRICANT GUN

NOTE: This gun included only with units bearing Serial No. 739762 and higher. All Lubricators having serial numbers lower than 739762 were equipped with Model 6620 Air Motor and 6625-C Magazine (See page 27) instead of Model 6060 Gun.

1. Description

The Model 6060 Alemite One-Pound Air Operated Gun delivers a shot of lubricant under high pressure each time the trigger is depressed. It can be used for handling any type of pressure gun lubricant.

2. Lubrication

Place several drops of S.A.E. 10 oil in relief port in top of air motor (See Figure 62). This should be done daily for best operation.

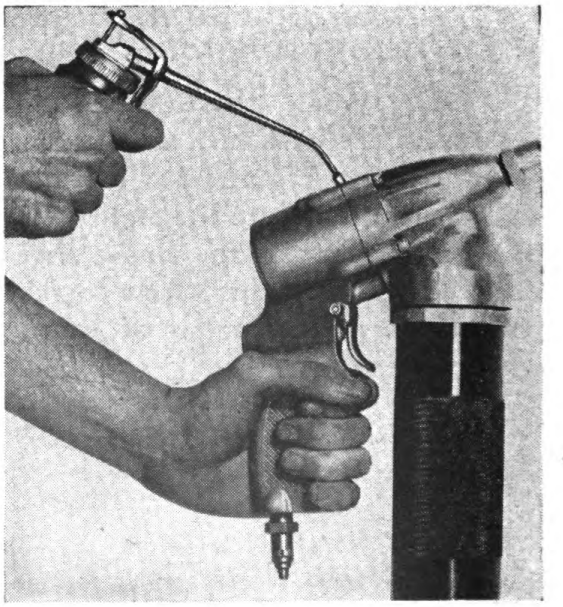


Figure 62
Oiling 6060 Gun

3. How to Fill Lubricant Cylinder

a. Hold air hose against primer valve (See Figure 63) to allow air pressure to force follower to upper end of cylinder.

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Model 6060 Gun (continued)



Figure 63
Applying Air Pressure to Primer Valve

b. Open release valve (See Figure 64) allowing air pressure to escape from cylinder. Leave release valve open until cylinder is filled.

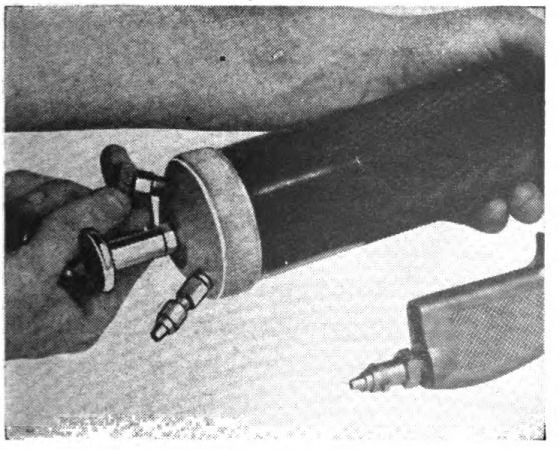


Figure 64
Opening Release Valve

c. Unscrew follower rod from cross member of cylinder adapter by turning follower knob counterclockwise (See Figure 65).

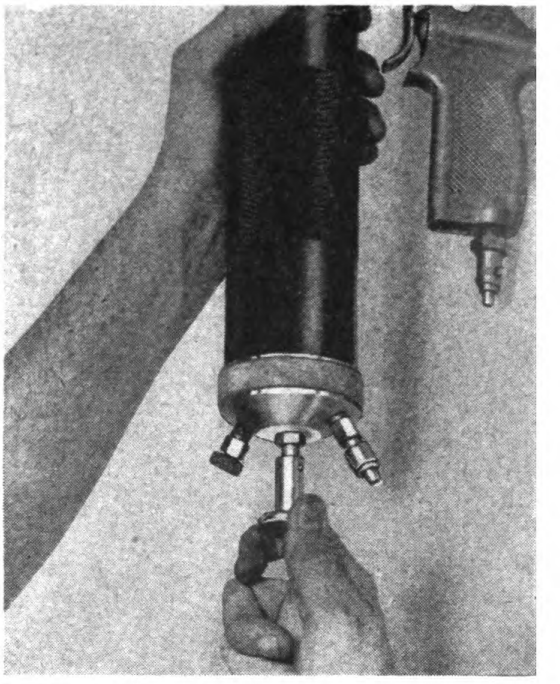


Figure 65
Unscrewing Follower Rod

d. Unscrew cylinder from cylinder adapter (See Figure 66).



Figure 66
Detaching Cylinder

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Model 6060 Gun (continued)

Before filling cylinder by suction make sure that follower is at open end of cylinder.

e. Insert open end of cylinder below surface of lubricant and pull out on follower knob as far as it will go (See Figure 67). Keep open end of cylinder in the lubricant when pulling back on knob. USE CLEAN LUBRICANT.



Figure 67
Filling Cylinder with Lubricant

f. Reattach cylinder to cylinder adapter, leaving follower rod out until this is done.

g. Push follower rod back into cylinder and screw upper end into cross member of cylinder adapter by turning knob clockwise (See Figure 65).

h. Close air release valve (See Figure 64).

The gun is now ready for use.

4. How to Use

a. Attach proper extension (See Figure 68) or whip end hose to gun outlet, depending upon the type of fitting to be serviced. (Refer to pages 8 to 10 for illustrations and instructions for using the adapters and hose for lubricating the various types of pressure fittings.)

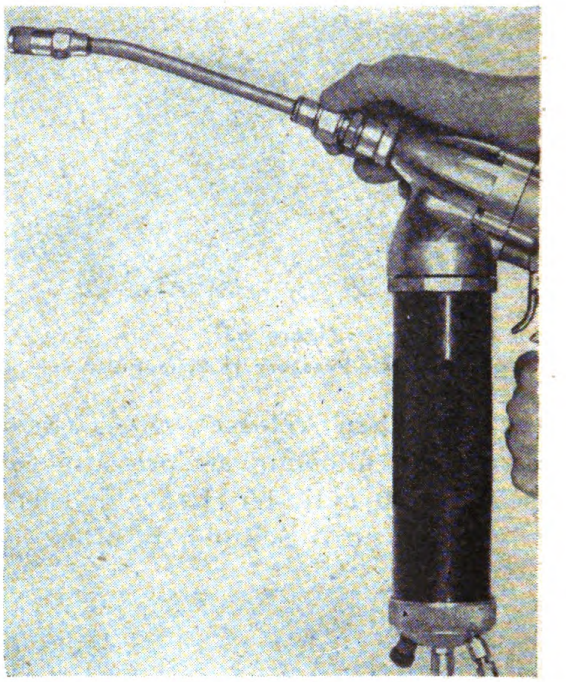


Figure 68
Attaching Extension with Hydraulic Coupling to 6060 Gun

b. Prime gun by holding air hose against primer valve (See Figure 63). The air pressure against follower forces lubricant into pumping chamber of gun.

If gun should lose prime at any time when in use, repeat this operation.

c. Attach air service hose on reel to gun (See Figure 69).

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Model 6060 Gun (continued)



Figure 69
Attaching Air Hose to Gun

d. Attach coupling to fitting (See previous paragraph **a**) and pull trigger and release for each shot of lubricant until bearing is lubricated. Only one shot of lubricant is delivered every time the trigger is pulled.

e. When service is completed, detach air hose (See Figure 69), release air pressure from cylinder (See Figure 64), detach extension or hose (See Figure 68), and wipe dirt and grease off gun before placing it in drawer.

K.
ONE-POUND LUBRICANT GUN *(Consisting of 6620 Air Motor and 6625-C Magazine)*

NOTE: This gun supplied only with units having serial numbers lower than 739762 (See Model 6060, Page 24).

1. Description

This air operated gun will handle all types of pressure gun lubricants. It develops very high pressure—approximately 40 times the air pressure used.

2. Lubrication

Remove plug and fill oiler daily with S.A.E. 10 oil (See Figure 70). The air hose must always be disconnected before removing oiler plug.



Figure 70
Filling Oiler of Air Motor

3. How to Fill Lubricant Cylinder

a. Unscrew cylinder from gun head (See Figure 71).

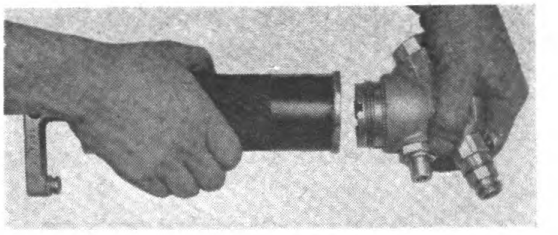


Figure 71
Head and Cylinder Detached

Before filling cylinder by suction make sure that follower is at open end of cylinder.

b. Insert open end of cylinder below surface of lubricant and pull out handle as far as it will go (See Figure 72). Keep open end of cylinder in the lubricant when pulling back on handle. USE CLEAN LUBRICANT.

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One-Pound Gun (Continued)



Figure 72
Filling Cylinder with Lubricant

c. Reattach cylinder to gun head, leaving follower rod out.

d. Attach air motor to gun head (See Figure 73) by inserting in head and turning to right.

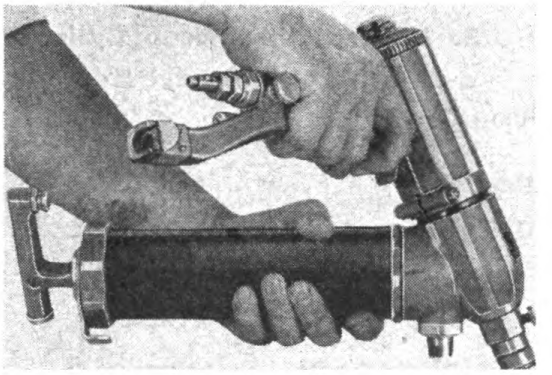


Figure 73
Attaching Air Motor

e. Open pressure release valve (See Figure 78), push follower handle all the way in, and engage with air motor handle (See Figure 74). Then close release valve.

The gun is now ready for use.

4. How to Use

a. Attach proper extension (See Figure 75) or whip end hose to

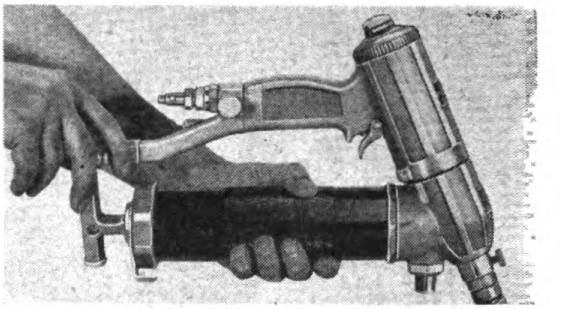


Figure 74
Engaging Follower Handle to Air Motor

gun outlet, depending upon the type of fitting to be serviced. (Refer to pages 8 to 10 for illustrations and instructions for using the adapters and hose for lubricating the various types of pressure fittings.)



Figure 75
Attaching Extension with Hydraulic Coupling to Gun Outlet

b. Attach air service hose on reel to gun (See Figure 75).

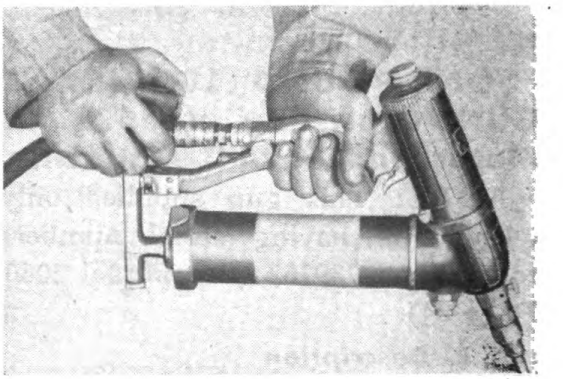


Figure 76
Attaching Air Hose

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One-Pound Gun (Continued)

c. Attach coupling to fitting (See previous Section **a**) and pull trigger until bearing is lubricated.

d. If gun operates too slow or too fast, the speed can be regulated by turning the exhaust cap (See Figure 77). Turn down to decrease speed and turn out to increase speed of the air motor.

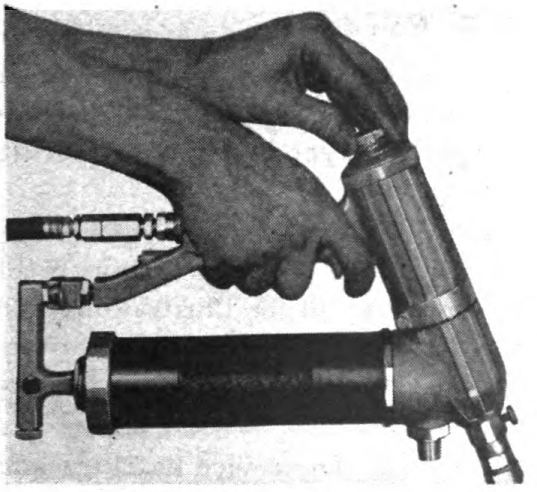


Figure 77
Regulating Air Motor Speed

e. If gun operates continuously without building pressure or delivering lubricant, open release valve (See Figure 78) and operate until clear lubricant appears at this point.

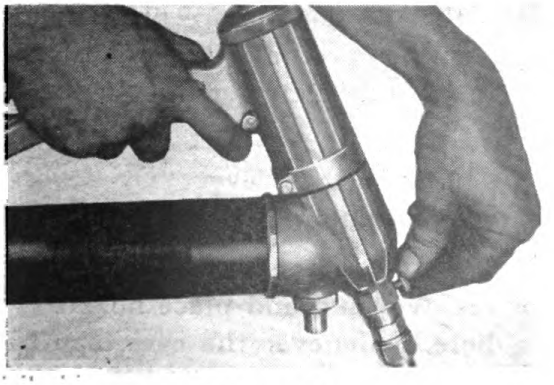


Figure 78
Opening Release Valve

f. When service is completed, detach air hose, release air pressure from cylinder (See Figure 79), detach extension or hose (See Figure 75), and wipe dirt and grease off gun before placing it in drawer.

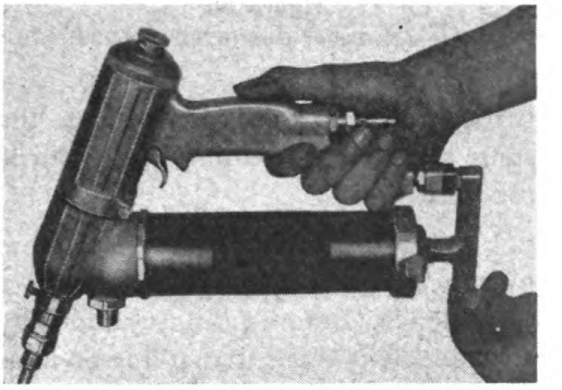


Figure 79
Opening Air Release Valve

L.
MODELS 6220 AND 6230 LEVER GUNS

1. Description

These hand operated guns will handle all types of regular and fibrous lubricants. The small diameter piston in the 6220 Gun develops high pressure and delivers a small amount of lubricant per stroke. This gun is very suitable for servicing bearings equipped with pressure fittings that require special lubricants at high pressure. The large diameter piston in the 6230 Gun develops low pressure and delivers a volume of lubricant per stroke making this gun desirable for servicing universal joints, and similar bearings requiring special lubricants at low pressure.

2. How to Fill Lubricant Cylinder

(Refer to Figure 80)

a. Unlock stem "K" from head "E" by pushing in on handle "I" and

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Models 6220 and 6230 Guns (continued)

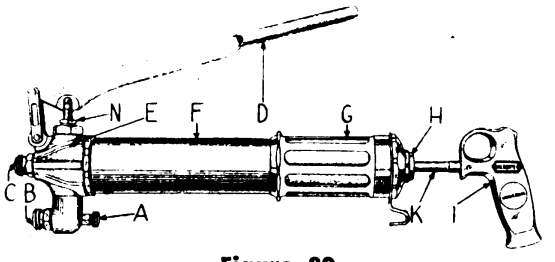


Figure 80
Alemite Lever Gun (6220 or 6230)

turning it counterclockwise at the same time. (Approximately two turns required.)

b. Unscrew cylinder "F" from gun head "E". Lay gun head in a clean place. Before filling cylinder by suction make sure that follower is at open end of cylinder.

c. To fill cylinder with semi-fluid or regular lubricant, insert open end of cylinder "F" below surface of lubricant and pull back the handle "I" until latch catches. Open end of the cylinder must be kept submerged when pulling back handle.

d. To fill cylinder with heavy lubricant, first pull handle "I" out until the latch catches, then fill the cylinder "F" by using a paddle. If the lubricant is extremely heavy it may be necessary to knead it to make it sufficiently plastic so that the cylinder can be filled without developing air pockets.

e. Fill the head "E" with lubricant.

f. Reattach the head "E" to the cylinder "F". Tighten by hand only. Wipe off lubricant on outside of gun.

g. Push the handle in until the locking screw touches the locking nut (inside the head "E") and then turn the handle "I" until the locking screw is tight in the locking nut. (Approximately two turns of the handle will tighten the locking screw.) By pulling the handle out approximately 1/8" the entire gun may be rotated about the stem "K" without loosening the locking nut.

h. Prime the gun by pushing in on sleeve "H" to release the latch.

3. *How to Use*

a. Attach proper extension or whip end hose to gun at "B", depending upon the type of fitting or bearing to be serviced.

(1) To service bearings equipped with pressure fittings refer to pages 8 to 10 for illustrations and instructions for using the adapters and hose for lubricating the various types of fittings.

(2) To service bearings and gear cases with plug holes, use the bent pipe extension with knurled nozzle tip. This nozzle tip must be opened by unscrewing it before inserting into the plug hole of bearing or gear case.

The bent pipe extension can be connected to the gun at "C" (on 6220 High Pressure Gun only) for bearings that do not require pressure, as the spring priming is sufficient to force the lubricant out into the bearing.

b. Operate lever "D" several strokes to eliminate any air pockets.

c. Attach coupling to fitting or remove plug and place nozzle tip in hole, whichever the case may be. Operate lever "D" until the bearing is lubricated.

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M.

MODEL 6290 SIX-OUNCE PUSH TYPE GUN

1. Description

This small hand operated gun delivers a measured amount of lubricant per stroke. Ideal for dispensing heavy lubricants to water pumps and wheel bearings equipped with Hydraulic, Push Type, or Pin Type Fittings.

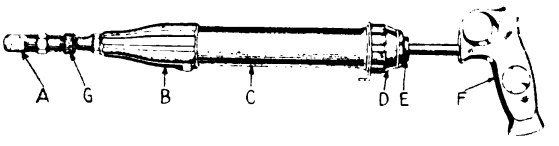


Figure 81
Model 6290 Push Type Gun

2. How to Fill Lubricant Cylinder

(Refer to Figure 81)

a. Unscrew the cone "B" from the cylinder "C". Put the cone "B" in a clean place.

b. Hold the cylinder in one hand at "D" and pull handle "F" out until the latch catches.

c. Fill the cylinder "C", using a paddle. *Be very careful not to form air pockets.*

d. Fill the cone "B" with lubricant.

e. Reattach the cone "B" to the cylinder "C". *Tighten by hand only.* Wipe off lubricant on outside of gun.

f. Release the lock by pushing in the sleeve "E". Pressure on sleeve "E" releases the latch.

g. Several strokes of the handle "F" back and forth will eliminate any air pockets that may have been formed.

3. How to Use

a. *To Service Hydraulic Fittings*

(1) Operate the handle "F" until lubricant shows at the coupling "A".

(2) Clean the hydraulic fitting.

(3) Snap the coupling "A" onto the fitting and work the handle "F" in and out until the bearing is lubricated.

(4) If no lubricant reaches the bearing, remove the coupling "A" from the fitting and work the handle "F" rapidly in and out until the air pocket is eliminated.

(5) To disconnect or remove the coupler from hydraulic fittings, pull the gun to one side. This breaks the contact between the jaws of the coupler and the fitting, and the gun can be easily removed.

(6) On the last stroke leave handle "F" in the forward position.

b. *To Service Push Type Fittings*

The push type nozzle "G" is exposed by unscrewing the hydraulic coupling "A".

(1) Operate the handle "F" until lubricant shows out of the nozzle tip "G" (after coupling "A" has been removed).

(2) Clean the push type fitting.

(3) Hold the nozzle "G" against the fitting and work the handle in and out until bearing is lubricated.

(4) On the last stroke leave handle "F" in the forward position.

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Model 6290 Gun (continued)

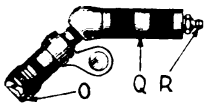


Figure 82
Hydraulic to Pin Type Adapter

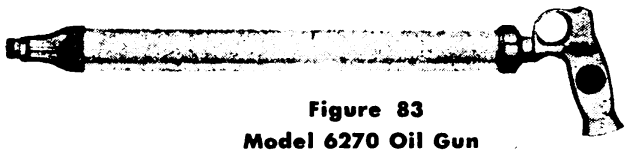


Figure 83
Model 6270 Oil Gun

c. To Service Pin Type Fittings

(1) Slide the sleeve "Q" of the pin type adapter (Figure 82) back until the hydraulic fitting "R" is exposed.

(2) Attach the coupling "A" (Figure 81) to the fitting "R" of the adapter (Figure 82).

(3) Slide the sleeve "Q" of the adapter over the coupling "A" until it can go no further.

(4) Clean pin type fitting.

(5) Attach the coupling "O" to the pin type fitting.

(6) Work the handle "F" (Figure 81) in and out until the bearing is lubricated.

(7) If no lubricant reaches the bearing, remove the coupling "A" from the fitting and work the handle "F" rapidly in and out until the air pocket is eliminated.

(8) In order to disconnect the coupling from tight bearings, slide the sleeve "Q" back and pull the coupling to one side. This breaks the contact between the jaws of the coupling and the fitting "R". The pin type adapter can then be easily removed.

N.
MODEL 6270 TWELVE-OUNCE OIL GUN

1. Description

This gun merely provides suction when the handle is pulled back, drawing oil into the cylinder; and when the handle is pushed forward the oil is forced out. Ordinarily used for draining and refilling small gear cases requiring oil, such as steering gears, transmissions, etc.

2. How to Use

a. Attach extension to gun outlet. Two types are provided for use with this gun (See Figures 84 and 85).



Figure 84
Model 6316 Gooseneck Nozzle



Figure 85
Model 6318 Flexible Nozzle

b. If gear case does not have a drain plug, remove filler plug, insert nozzle into fill hole, and pull back on the gun handle. Remove nozzle from hole and push in the handle as far as it will go to empty the old oil from the gun. Repeat as many times as necessary to drain the housing.

c. To fill gear case, insert nozzle into the new oil and pull out the gun handle as far as it will go. Then insert nozzle in fill hole and push in the gun handle until a sufficient quantity of oil has been dispensed.

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O.

MODEL 5328 OIL SPRAY

1. Description

This air operated unit is for rapid spraying of springs, etc. It has a fourteen-inch curved nozzle adjustable to any direction. The flow can be regulated to give the amount of oil mist desired. Holds one quart of oil.

2. How to Fill with Oil

Unscrew container from head and pour oil into container. Be sure leather washer is in head, then screw head onto container.

3. How to Use

a. Attach air service hose on reel to air inlet of spray (See Figure 86).

b. Hold spray in either hand with nozzle tip near part to be sprayed and depress thumb button (See Figure 86) until part is covered with oil.

c. To increase or decrease the amount of oil mist turn the small knurled screw (See Figure 86). Turn clockwise to increase and counterclockwise to decrease the amount.



Figure 86
Turning Oil Flow Regulating Screw

P.

MODEL 6685 WHEEL BEARING LUBRICATOR

1. Description

The Model 6685 packs the proper amount of lubricant into the races and cages of roller and ball type wheel bearings. It will handle bearings up to 4" outside diameter and 1¾" bore. Various adapter plates are provided for use with different types and sizes of bearings (See Figure 87).

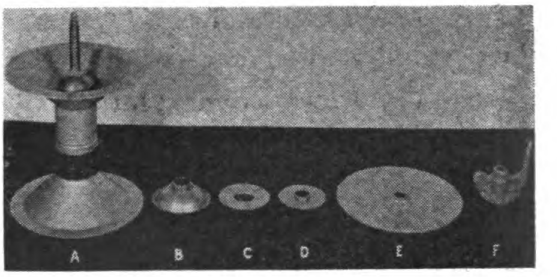


Figure 87
Model 6685 Wheel Bearing Lubricator

A. Lubricator
B. Base Plate for Ball Bearing
C. Cover Plate for Ball Bearing
D. Base Plate for Large Roller Bearing
E. Cover
F. Clamp

2. How to Use

a. Remove bearing from wheel and thoroughly wash in gasoline to remove all old lubricant and dirt. Examine bearing for defects, and dry thoroughly using compressed air.

b. Remove clamp and cover from lubricator.

c. To lubricate *Ball Bearings*, assemble as follows:

(1) Set base plate for ball bearings (See "B" Figure 87) on lubricator.

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Model 6685 Lubricator (continued)

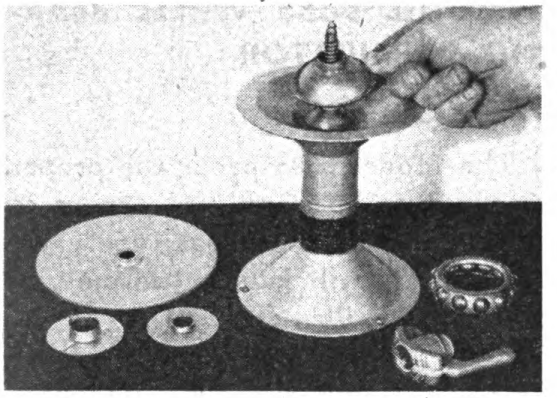


Figure 88
Setting Base Plate on Lubricator

(2) Set ball bearing on base plate, small end of bearing down.

(3) Place cover plate ("C" Figure 87) over ball bearing, so that the ribs rest on edge of bearing.

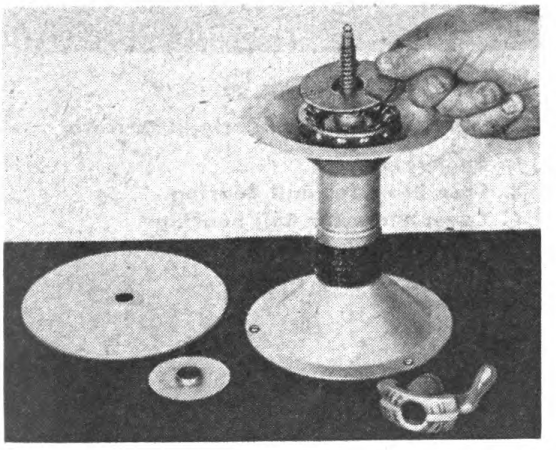


Figure 89
Placing Cover Plate over Ball Bearing

The hole in cover plate telescopes over flange of base plate.

(4) Turn clamp down tight until base plate seals on side of lubricator.

The bearing is now ready for lubrication. See Figure 93.

d. To lubricate *Small Roller Bearings,* assemble as follows:

(No plates are required for small roller bearings.)

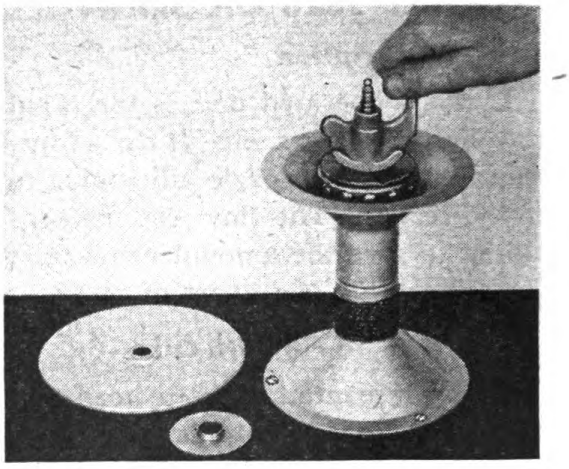


Figure 90
Turning Clamp down tightly

(1) Place small bearing on lubricator, wide end down.

(2) Tighten clamp until bottom of bearing seals in cup. DO NOT USE WRENCH OR PLIERS.

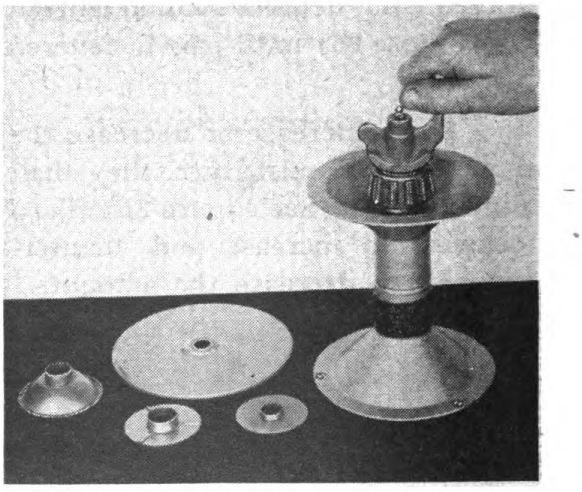


Figure 91
Tightening Clamp on Small Roller Bearing

The bearing is now ready for lubrication. See Figure 93.

e. To lubricate *Large Roller Bearings,* assemble as follows:

(1) Set base plate ("D" Figure 87) over the lubricator, flange up.

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Model 6685 Lubricator (continued)

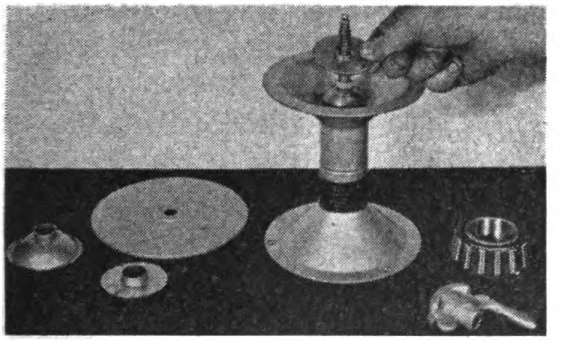


Figure 92
Setting Base Plate for Large Roller Bearings on Lubricator

(2) Center large roller bearings, wide end down, on base plate. (Place Tyson Cageless Roller Bearings small end down.)

(3) Tighten clamp until bearing seals in lubricator. The bearing is now ready for lubrication. See Figure 93.

f. *Lubricating Bearing:*

The lubrication of all bearings is done in same manner. The use of Model 6220 Lever Gun is recommended (See Figure 93). USE ONLY WHEEL BEARING LUBRICANTS OF THE BEST QUALITY AND THE PROPER GRADE recommended by the manufacturer.

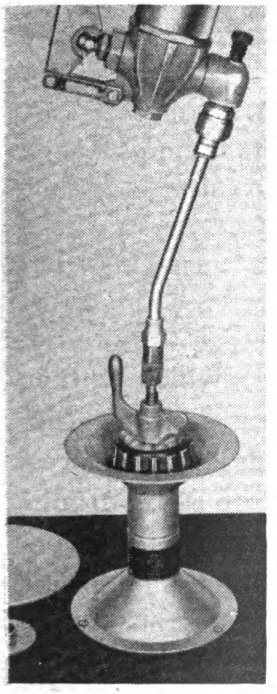


Figure 93
Lubricating Bearing

(1) Connect gun to lubricator. Operate until lubricant comes out at the top when lubricating roller bearings. Operate gun until lubricant comes out through the holes in cover plate ("C" Figure 87) when lubricating ball bearings.

(2) Remove bearing from lubricator and reassemble to wheel. Adjust carefully.

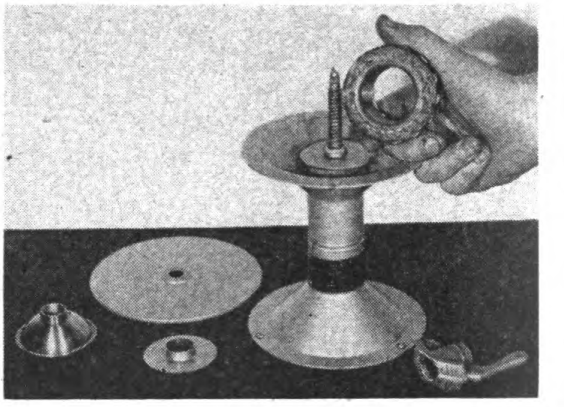


Figure 94
Packed Bearing

IMPORTANT: When lubricator is not in use keep cover ("E" Figure 87) in place to prevent contamination.

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Q.

MODEL FL-308 HYDRAULIC BRAKE SERVICE UNIT (FLUID-BAL)

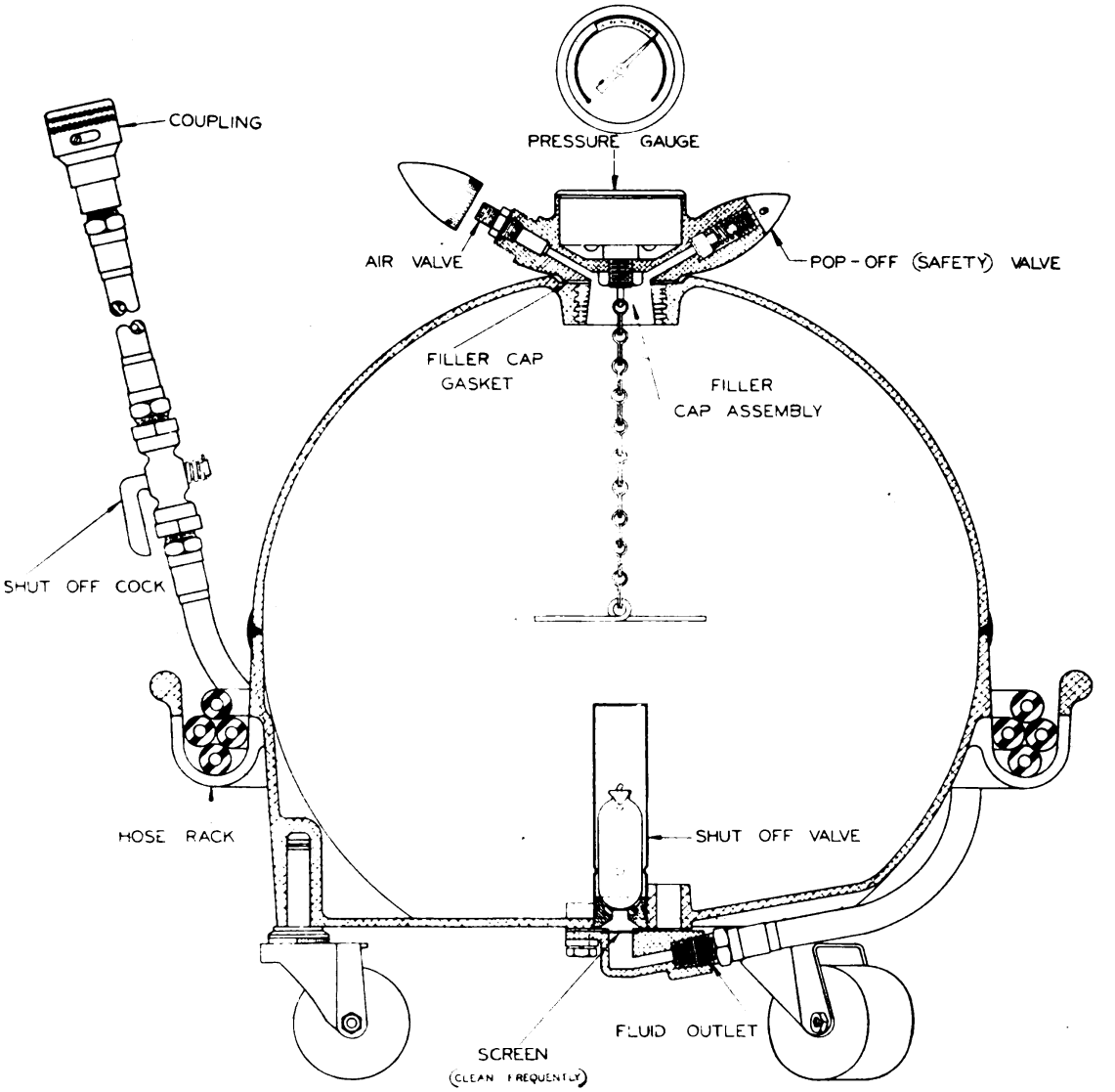


Figure 95
Cross Section of Fluid-Bal

1. Description

The Wagner Fluid-Bal provides a means of refilling fluid, or of bleeding the air from hydraulic brake systems, or other similar hydraulic pressure systems.

The unit consists of a tank, resting on casters, having an outlet at the bottom and a filler cap at the top. The tank is partially filled with fluid (fluid capacity 2½ gallons) which is then placed under low air pressure (approximately 30 pounds). The air pressure forces the fluid into the hydraulic system, through a hose connected between the Fluid-Bal and the hydraulic main or master cylinder. The hose threads into the tank bottom adapter which holds a filtering screen and a "float type" shut-off valve in position

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Model FL-308 Fluid-Bal (continued)

in the tank outlet. The bottom adapter is attached to the tank with four screws and lock washers, a bottom adapter gasket preventing leakage at the joint. The "float type" shut-off valve at the outlet automatically closes when the fluid supply is too low, preventing air entering the supply hose. The fluid supply may be manually shut off with a shut-off cock in the hose.

The hose is connected to the main or master cylinder with one of the several adapters which replace the filler cap in the cylinder. The female Schrader coupling on the hose snaps onto the male coupling threaded into the adapter. The hose is uncoupled by twisting the female coupling slightly and pulling it from the male coupling. Several filler plug adapters, adapter fittings, and an adapter hose are furnished so that the unit can accommodate all standard master cylinder filler caps and so that the hose can be attached from any angle necessary to clear obstacles.

The Fluid-Bal filler cap threads into the tank and is sealed with a gasket to prevent loss of air pressure. The filler cap is provided with an air gauge, which registers the working air pressure range; a Schrader valve for filling the unit with air; and a "pop-off type" safety valve, which protects the operator and unit from excessive air pressure.

2. How to Fill

a. Be certain hose shut-off cock is in closed position.

b. Remove filler cap.

CAUTION: Release the air pressure from the unit before removing the filler cap.

c. Pour in brake fluid (2½ gallons).

d. Replace filler cap.

e. Remove air valve cap.

f. Force air pressure into the unit through the Schrader air valve (See Figure 96). The pressure should register to the far side of the working range shown on the air gauge.



Figure 96
Applying Air Pressure to Fluid-Bal

g. Replace air valve cap.

3. How to Use

a. Remove main or master brake cylinder filler plug.

b. Fill cylinder with fluid to proper level.

c. Attach proper adapter in filler plug opening.

d. Attach hose coupling to cylinder adapter.

e. Open hose shut-off cock.

f. Proceed to bleed hydraulic system, opening, in turn, each bleeder fitting in the system until all air is expelled.

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Model FL-308 Fluid-Bal (continued)

g. Close the hose shut-off cock.

h. Uncouple the Schrader hose coupling.

i. Remove the main or master cylinder adapter and replace the cylinder filler plug.

j. Release air pressure from Fluid-Bal.

4. Care of Fluid-Bal

a. Rough handling causes the fluid to churn, creating undesirable air bubbles in the fluid. Treat the unit with care.

b. A screen is provided at the bottom adapter to eliminate foreign particles being introduced into the hydraulic system. This screen should be cleaned frequently as follows:

(1) Remove the filler cap.

(2) Invert the Fluid-Bal and drain the fluid from the unit.

(3) Remove the four screws holding the bottom adapter.

(4) Remove the bottom adapter and gasket.

(5) The screen may easily be lifted from the adapter.

(6) Clean screen and reassemble.

R.
HOW TO PREPARE THE 2430 PORTABLE LUBRICATION UNIT FOR STORAGE

1. Make sure that reservoir oiler installed in main air line to pumps is full of oil (See Figure 36). Operate the "motor oil" pump continuously for 5 minutes (See page 8). The oil can be pumped back into the tank when this is done by opening the tank cover. This operation assures that the internal parts of the air motor are well lubricated before the pump is put into storage. The two "chassis" and the "gear" lubricant pumps should also be cleaned and operated continuously for five minutes *pumping motor oil.* This will flush out the pumping mechanism and leave a film of oil on the internal parts. Make sure that reservoir oiler in main air line is full of oil so that the air motor is also thoroughly lubricated when this is done. The "chassis" and "gear" pumps can be set in a separate container containing oil or the "motor oil" pump can be removed from the tank and this compartment used for the flushing operation. To remove

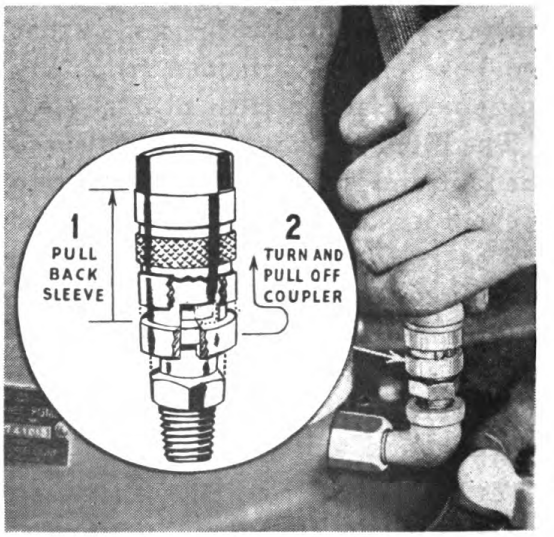


Figure 97
Detaching Air Line from Pump

pumps from the tank, disconnect air line by pulling back knurled sleeve of air coupler (See Figure 97) and turning coupler counterclockwise.

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How to Prepare for Storage (continued)

Then remove four screws (See Figure 98) holding pump to tank. Do not disconnect grease hose from pump outlet, as pumping oil through entire hose serves to flush the old grease out of the hose and control valve at the same time the pump is being flushed. The "chassis" and "gear" pumps should therefore be operated until clean oil is delivered through the control valves.

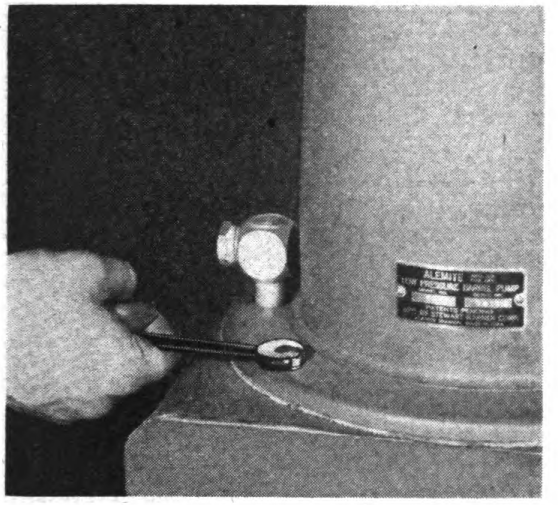


Figure 98
Removing Screws holding Pump to Tank

2. Transfer all lubricant and oil from tank compartments and clean thoroughly. Close covers tightly.

3. Clean exterior of all rubber hose thoroughly.

4. While there is still air pressure in the receiver, open drain valve (See Figure 43) and allow all moisture and air pressure to escape.

5. In order to prevent gum formation (oxidation), drain all gasoline from engine fuel tank and clean filter bowl. To drain carburetor allow engine to run after tank and filter bowl have been emptied until all fuel in carburetor has been used up and engine dies.

6. Drain out old oil and clean crankcase of both engine and compressor.

7. Clean air filter of both engine and compressor.

8. Clean all dirt and grease off entire unit.

9. Destroy all dirty, greasy rags found in drawers and tool box.

10. Empty and clean all accessory guns, adapters, etc. Place several drops of oil on cup leathers of accessory guns and work in until leathers are soft and pliable.

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MAINTENANCE MANUAL

LUBRICATOR, TRAILER MOUNTED

MODEL NO. 2430

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II. Maintenance Manual

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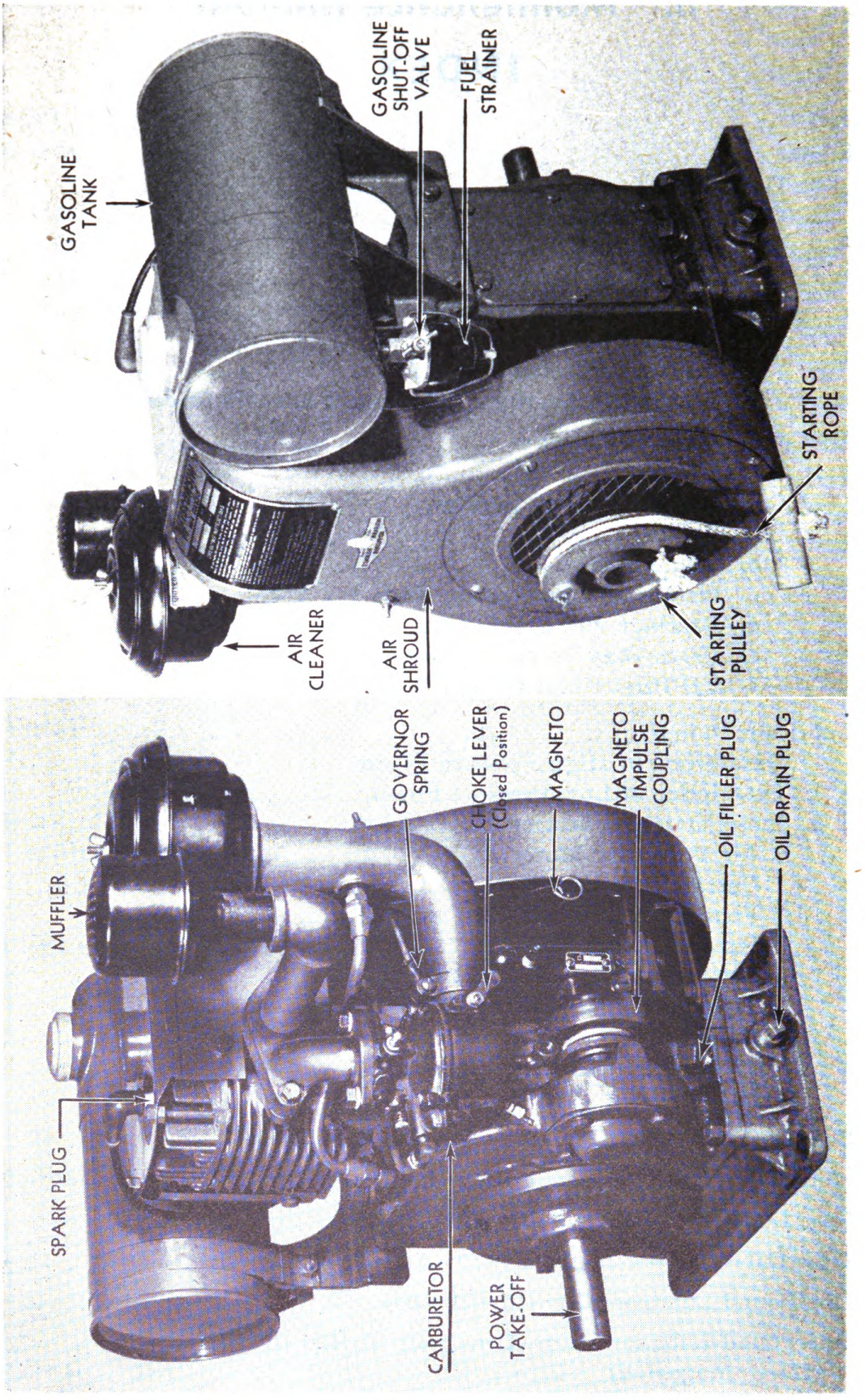


Figure 99—Wisconsin AEH Engine (two views)

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A.

Single Cylinder Air-Cooled Engine

1. Description:

The Wisconsin AEH Engine is of the four-cycle type, in which each of the four operations of suction, compression, expansion, and exhaust requires a complete stroke. In other words, a total of two revolutions of the crankshaft are required to complete these four operations. The engine has a 3″ bore and 3¼″ stroke and develops 4½ H.P. at 1800 R.P.M.

The proper combustible mixture of gasoline and air is furnished by a carburetor. The spark for ignition of the mixture is furnished by a high tension magneto, fitted with an impulse coupling, which makes starting very easy.

Lubrication is of the splash type. A plunger pump maintains the oil level in a trough under the connecting rod.

Cooling is accomplished by a flow of air circulated over the cylinder and heads by a combination fan-flywheel encased in a sheet metal shroud. The air is directed by ducts and baffle plates to insure uniform cooling of all parts.

2. Carburetor Overhaul Service:

a. GENERAL DESCRIPTION OF CARBURETOR — The Stromberg "UC" carburetor float chamber is built concentric to the main discharge jet; thereby practically surrounding the main metering system with fuel. This type construction permits a supply of gasoline to be present at the main discharge jet even though the motor is setting at an angle. The float is of a dual type so constructed that one float operates in each side of the float chamber, and both being connected by means of one and the same lever to the float needle valve. The float mechanism is of the hinge type which assures positive shut-off under all conditions. The carburetor is entirely sealed and all air for venting and bleeders is taken through the air horn.

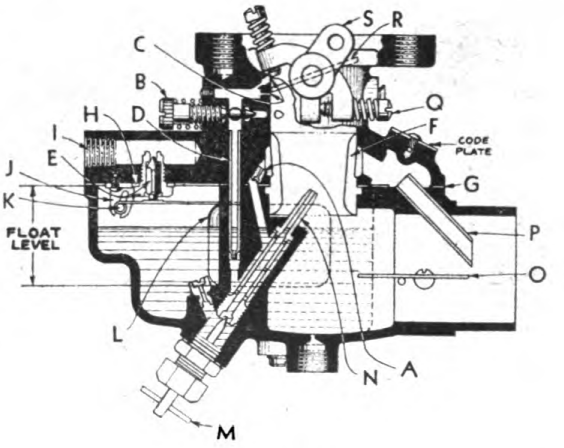


Figure 100

Cross Section of Carburetor

A—High Speed Bleeder
B—Idle Needle Valve
C—Idle Discharge Holes
D—Idle Tube
E—Float Needle Valve and Seat
F—Venturi
G—Main Body Gasket
H—Needle Valve Seat Gasket
I—Gas Inlet
J—Float Hanger
K—Float Fulcrum Pin
L—Float
M—High Speed Needle
N—Main Discharge Jet
O—Choke Valve
P—Vent Tube
Q—Throttle Lever Stop Screw
R—Throttle Valve
S—Throttle Lever

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Carburetor Overhaul Service (continued)

b. *TO REMOVE CARBURETOR FROM ENGINE:*

(1) Close shut-off valve in gasoline line below fuel tank (See Figure 9).

(2) Disconnect fuel line from carburetor inlet elbow.

(3) Remove cotter pin holding governor control rod in hole in governor lever (See Figure 101).

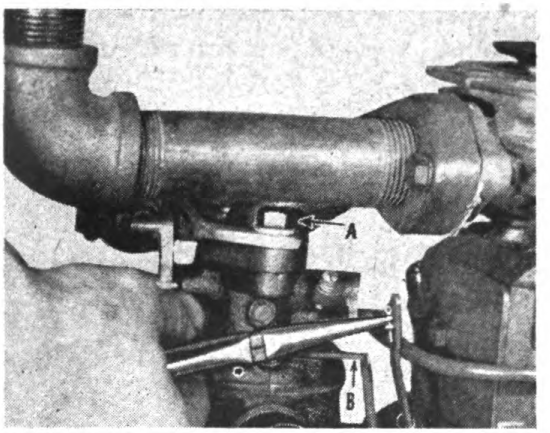


Figure 101
Removing Governor Control Rod Cotter Pin

(4) Remove two screws ("A" Figure 101) holding carburetor to intake manifold.

(5) Loosen screw holding air intake pipe to carburetor (See Figure 102).

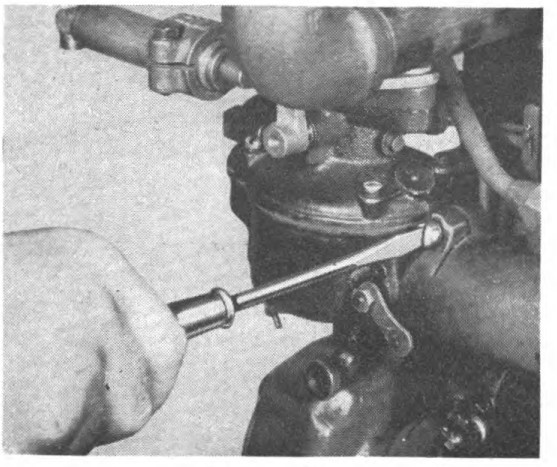


Figure 102
Loosening Air Intake Pipe Screw

c. *DISASSEMBLY, CLEANING AND REASSEMBLY*—If at any time any of the various passages or jets in the carburetor become clogged with dirt or gum from the fuel, it may be necessary to take the carburetor apart for cleaning. This should not be done unless absolutely necessary.

(1) Remove upper half or throttle body from the lower half or main body by taking out the four screws (See Figure 103).

NOTE: Before removing screw holding choke return spring clip ("B" Figure 101), it is advisable to mark its position so that it can be reassembled in the same notch.

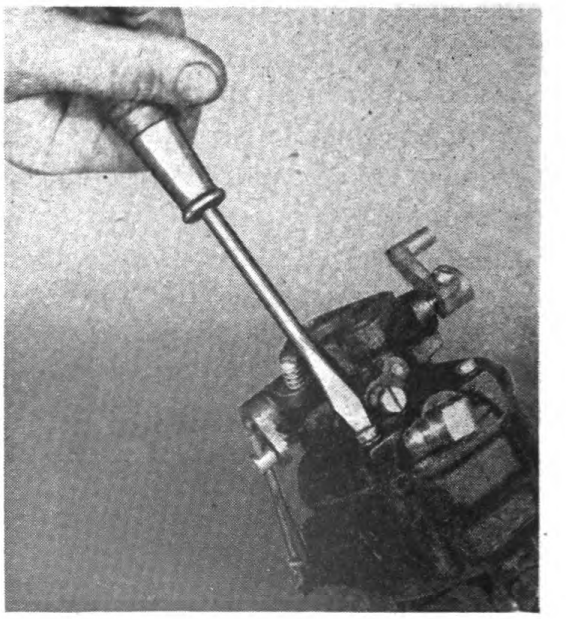


Figure 103
Removing Carburetor Body Screws

(2) Remove and clean the high speed needle, the main discharge jet (See Figure 104), and the high speed bleeder ("C" Figure 106).

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Carburetor Overhaul Service (continued)

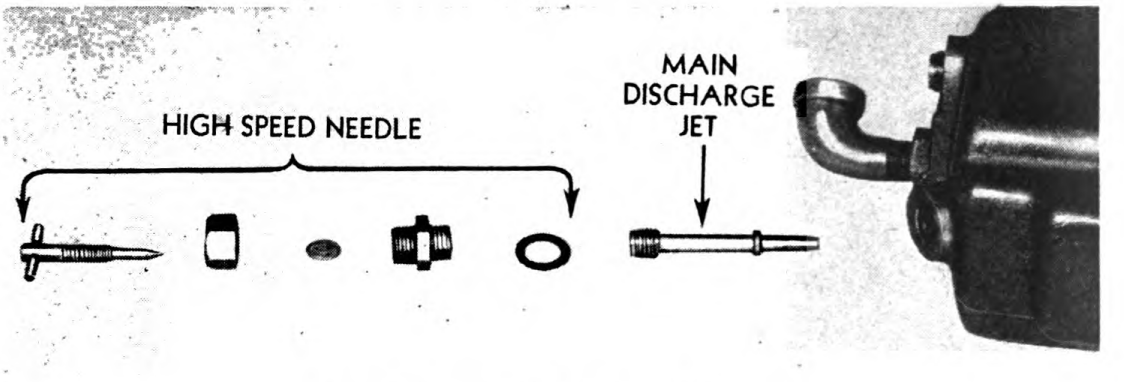


Figure 104—Needle and Jet Removed

(3) Remove and clean idle tube. Pliers can be used for removing (See Figure 105).

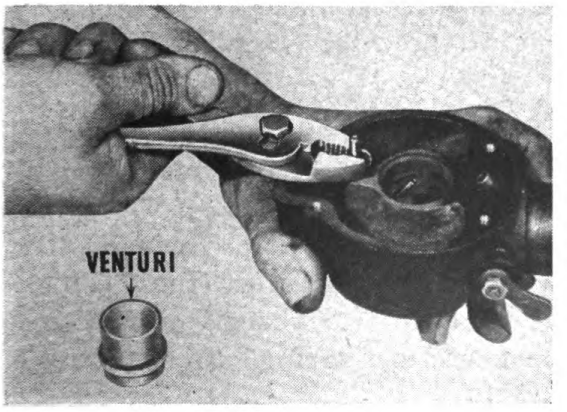


Figure 105
Removing Idle Tube

(4) Remove and clean the idle needle valve ("B" Figure 100). Hold finger over hole ("D" Figure 107), and apply air pressure to hole from which idle needle valve was removed. Air should pass through upper body and out two small holes ("C" Figure 100). These holes and idle tube ("D" Figure 100) must be open to obtain a satisfactory idle adjustment of carburetor.

(5) The float needle valve ("E" Figure 100) must seat tightly and must be free from specks of dirt, also free from wear. A poorly seating float needle valve will cause leakage and too high a fuel level will result. A high fuel level will cause too rich a mixture and flooding. This condition will also cause hard starting, especially if the engine is warm from previous running.

To clean or replace the float needle valve and seat, the float fulcrum pin must be pulled out (See Figure 106), allowing the float to be removed. This will expose the float needle valve and seat.

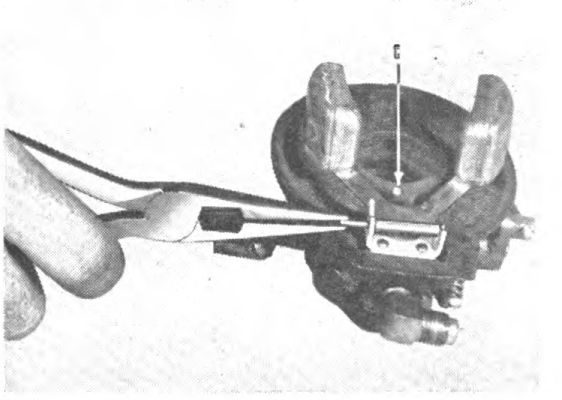


Figure 106
Removing Float Fulcrum Pin

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Carburetor Overhaul Service (continued)

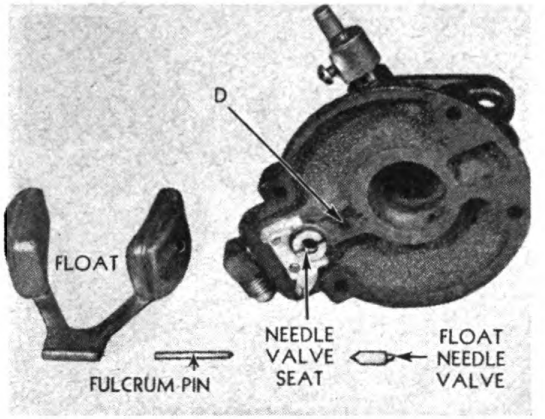


Figure 107
Float and Needle Removed

(6) After all jets, passages, and valves have been cleaned, inspected, and defective parts replaced with new ones, they should be reassembled. Be sure that all gaskets are in place. If necessary, new gaskets should be used. Unless the service man is very familiar with carburetor construction it is advisable to replace the various jets, etc., as they are removed and cleaned.

(7) After the float needle valve, float, and float fulcrum pin are reassembled to the throttle body, the float level can be checked by holding throttle body in an inverted position and measuring the distance from the top of each float to the gasket surface of the throttle body. This dimension should be 1¼".

This setting has been properly made at the factory and will not require adjusting unless carburetor has been handled roughly or level has been changed from some other cause.

(8) Place venturi ("F" Figure 100) in main body and place large gasket ("G" Figure 100) over venturi onto main body. Then reassemble the throttle body to main body of carburetor with four screws. The long screw is used to hold the choke return spring clip, which should be reassembled in the same notch as it was found.

d. *TO REPLACE CARBURETOR ON ENGINE:*

(1) Slip air inlet of carburetor into air intake pipe. Replace two screws ("A" Figure 101), and tighten screw holding air intake pipe to carburetor (See Figure 102).

(2) Place governor control rod in hole in governor lever and insert cotter pin (See Figure 101).

(3) Connect fuel line to carburetor inlet elbow.

e. *ADJUST CARBURETOR.* (Refer to pages 18 and 19 of Operator's Manual for complete information).

Be sure choke snaps open readily when engine is started. If not, it may be necessary to change position of choke return spring clip ("B" Figure 101).

3. *Magneto Overhaul Service:*

a. *LUBRICATION.*

Refer to Sections F-1-c and F-1-d of Operator's Manual, pages 11 and 12.

b. *BREAKER POINTS.*

Correct setting is .015" (Refer to Section G-1-b of Operator's Manual, page 14).

To remove the breaker arm, take out the breaker arm clamp screw (See Figure 109), lock washer, clamp washer, and breaker arm spring terminal screw and lock washer. Next

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Magneto Overhaul Service (continued)

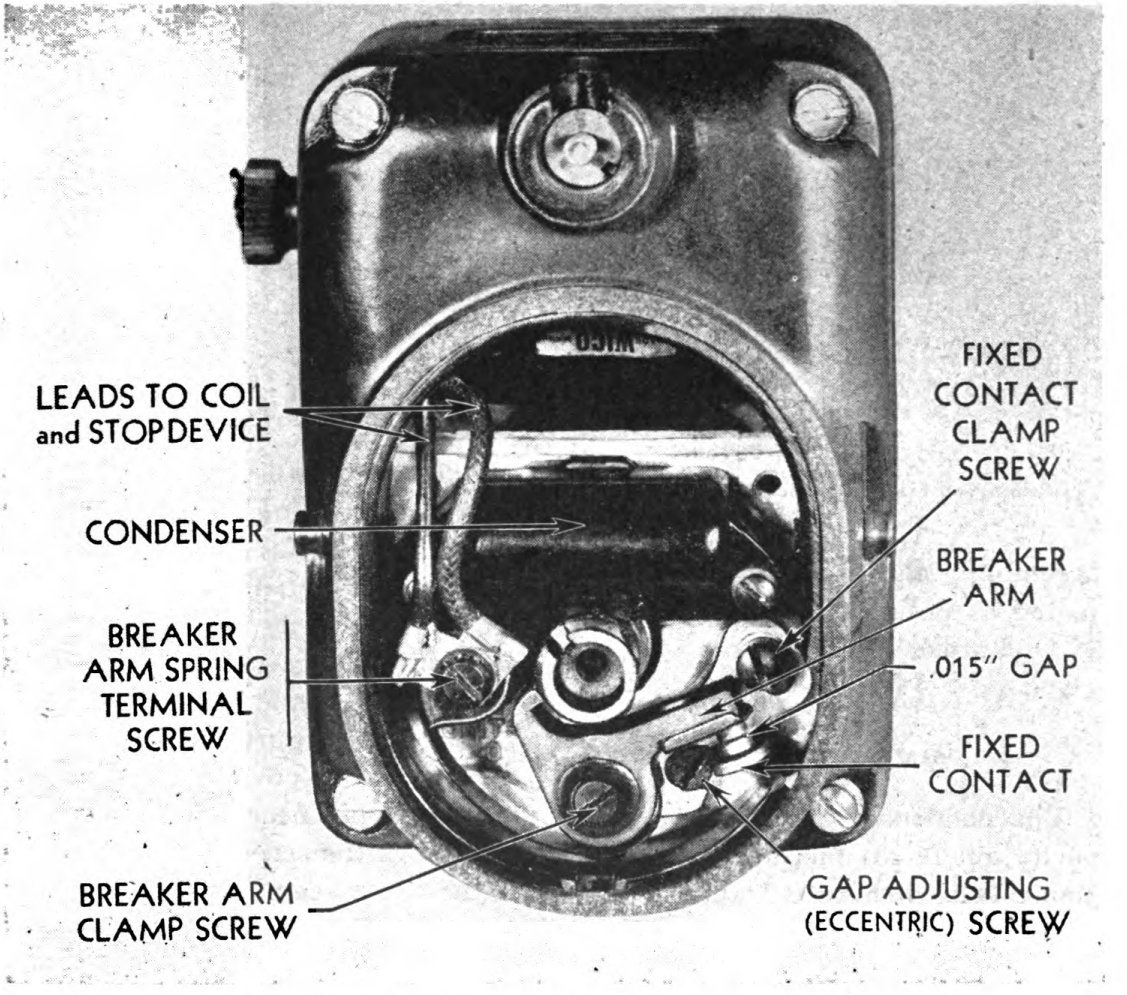


Figure 108—Magneto with Breaker Cover Removed

pull the breaker arm and the breaker arm spacer off the pivot. When replacing make certain that the leads from the coil and stop device are in place under the breaker arm spring terminal screw.

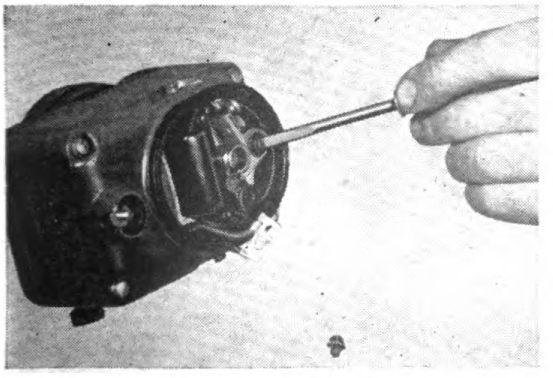


Figure 109
Removing Breaker Arm Clamp Screw

To remove the fixed contact the breaker arm must first be removed as outlined above. Then take off the spacing washer, remove the clamp screw (See Figure 110), lock washer and washer after which the fixed contact may be pulled off the breaker arm pivot.

If the points need replacing it is recommended that both the fixed contact and the breaker arm be replaced at the same time. After re-

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Magneto Overhaul Service (continued)

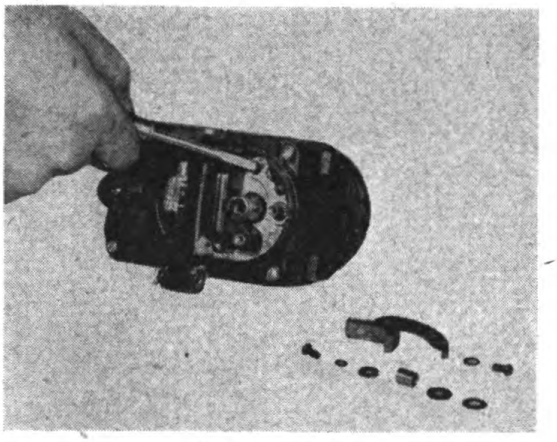


Figure 110
Removing Fixed Contact Clamp Screw

assembling the points should be adjusted as described in Section G-1-b of Operator's Manual, page 14.

c. *CONDENSER.*

The condenser should have a capacity of 16-18 microfarads. If the condenser when tested shows to be below capacity it should be replaced.

To remove the condenser, disconnect the ground and coil leads by removing the breaker arm spring clamp screw and washer. After removing the two condenser screws (See Figure 111) and lock washers, the condenser may be removed by sliding it slightly away from the breaker arm pivot and pulling it upward. In replacing the condenser make certain that the condenser case gasket is in place and that the coil and ground leads are firmly fastened.

d. *COVER.*

The cover with the breaker assembly intact may be removed after the breaker cover has been removed. It is however first necessary to loosen the breaker arm spring screw and pull out the coil and ground lead terminals. Next loosen the four screws (See Figure 112), one in each corner of the cover, until they are free. It is not necessary to completely remove the screws from the cover. If the cover seems to stick it may be loosened by slightly tapping with the palm of the hand.

When replacing the cover make certain that the gasket is cemented to the main housing.

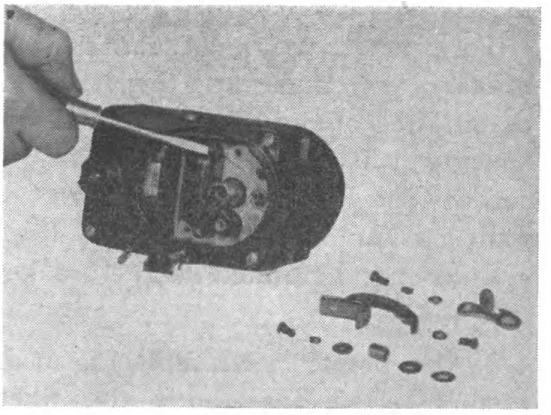


Figure 111
Removing Condenser Screw

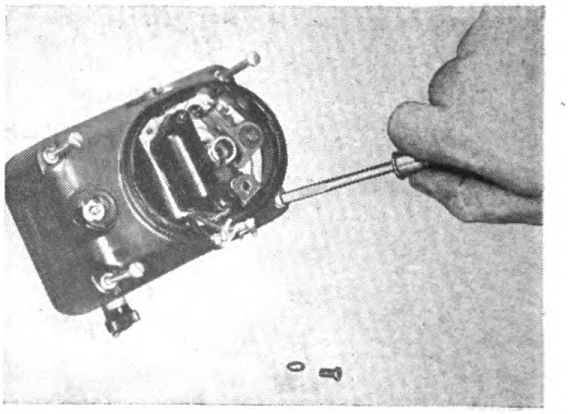


Figure 112
Loosening Cover Screws

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Magneto Overhaul Service (continued)

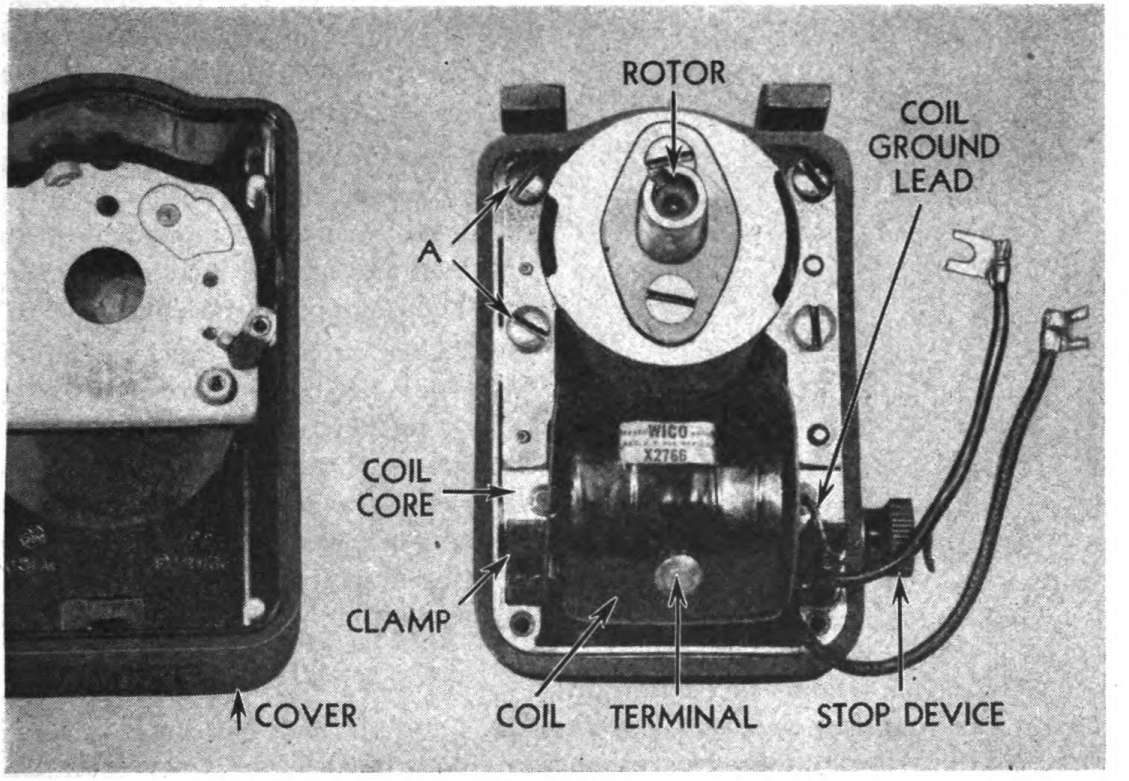


Figure 113—Magneto with Cover Removed

e. *COIL.*

(1) *Testing* — It is not necessary to remove the coil from the magneto when testing the coil. When using an Eiseman coil tester, connect the ground lead of the tester to the housing of the magneto; connect the breaker lead of the tester to the breaker arm spring terminal screw of the magneto; connect the spark lead of the tester to the high tension terminal on the coil; turn the cam until the breaker points are open. The coil must be replaced if it requires more than 1.5 ampere to give a steady spark on a 5 mm. gap.

(2) *Removal of Coil and Coil Core*—With the magneto cover off remove the two fillister head screws (See Figure 114) holding the coil core clamps in place. Under one of the coil core clamps is found the ground end of the primary and secondary of the coil. Turn the rotor until the magnetism no longer grips the coil core to the main housing. Pull the coil and coil core free. When replacing the coil and coil core on the magneto be sure the ground surface of the core is against the laminated cores of the housing and the primary and secondary ground lead.

When the coil is in place the coil terminal should be up and toward the breaker point. The surface of this contact must be clean. Be sure to place the ground lead of the coil under the core screw lock washer, not under the core coil clamp.

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Magneto Overhaul Service (continued)

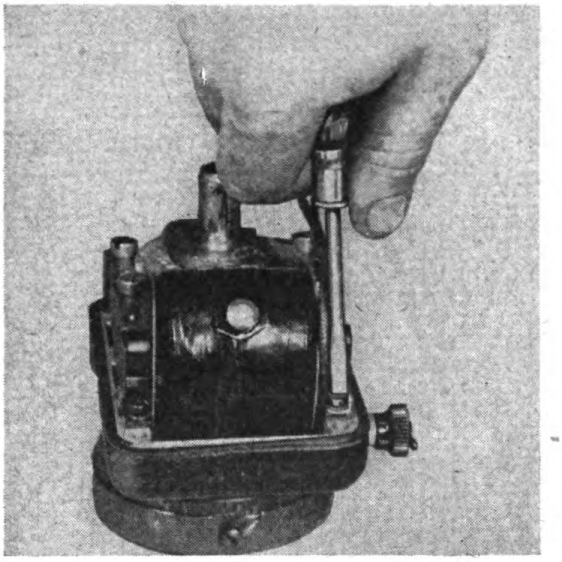


Figure 114
Removing Coil Core Clamp Screw

CAUTION: Under no condition should the four screws ("A" Figure 113) holding the laminated cores on the main housing be removed. These cores are put on at the factory and finished to very close tolerances to maintain the proper air gap between the cores and the rotor.

(3) *Removal of Coil from Core*—The coil is held to the coil core by two wedges. It is therefore necessary to press against the coil core with considerable force to remove it from the coil. Be careful when removing the core from the coil that the coil is supported in such a way that there is no danger of the primary of the coil being pushed out of the secondary.

When replacing a coil on the coil core, slide it on, being sure that the finished side of the core is down and the high-tension button on the coil is up. Then, on the finished side of the core, press in the two wedges, one on each side, until they are flush with the primary coil winding. Slide the coil shield on, one on each side, and thread the primary lead through the slot provided in the coil shield.

(4) *Stop Device*—The stop device serves the purpose of rendering the magneto inoperative by short-circuiting the primary circuit and thus stopping the engine.

The black nut is rotated to the left on the left-hand threaded stud, which pushes grounding sleeve into contact with the housing, thus short-circuiting the primary. The magneto remains inoperative until the stop nut is rotated to the right, thus opening the circuit.

f. *IMPULSE COUPLING:*

(1) *Lock Nut*—The impulse coupling lock nut is best removed by using Wico Tool No. S4704. The impulse nut has a right hand thread and therefore, in order to unscrew it, it is necessary only to run the magneto over until the trip arm is against the impulse stop.

When reassembling impulse lock nut it will be necessary to use Wico Tool S5619 to prevent the rotor from turning.

(2) *Dust Cover* — Remove dust cover by loosening the small screw which holds it in place. The dust cover, gasket, and dust cover ring may then be removed from the magneto. If the cork gasket shows signs of wear, it should be replaced.

(3) *Drive Cup and Drive Spring*—To remove the drive cup, after having removed the impulse lock nut and the dust cover as explained above, with the drive spring, turn the drive cup in the direction

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Magneto Overhaul Service (continued)

of the proper magneto rotation until the trip arm latches against the impulse stop. Continue to turn the cup until the projection of the cup has cleared the projection on the driven flange. Without the friction of these parts against each other the cup can be pulled out far enough to allow it to unwind. A firm grip should be taken on the cup to prevent possible injury to the hand. Then pull the cup with the spring still in it off the shaft.

To remove the impulse drive spring from the drive cup it is necessary to work the spring out of the cup with a screwdriver (See Figure 115).

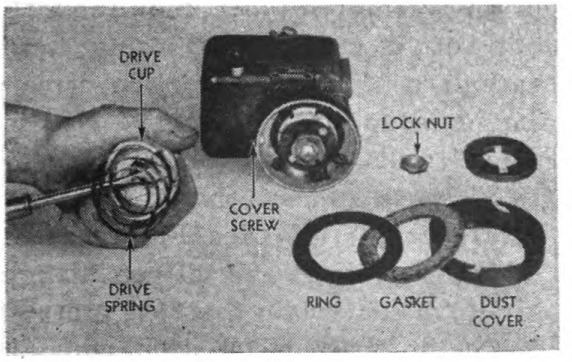


Figure 115
Removing Drive Spring

In replacing the drive spring, locate the spring over the cup so that the outer eye in the spring is over the slot provided inside wall of the cup. For a clockwise magneto, the spring should be installed so that the turns spiral in toward the inner eye in a clockwise direction. For a magneto of counterclockwise direction, it should be just reversed, i.e., the spring should spiral inwards in a counterclockwise direction.

The model C drive cup can be used interchangeable on magnetos of clockwise or counterclockwise rotation. Some of the earlier drive cups had two holes in the outside wall, one for clockwise rotation and one for counterclockwise rotation. When using one of these drive cups with two holes, to determine the correct slot for a given rotation, hold the drive cup so that the two slots are horizontal and on top. The slot for the clockwise rotation is then on the left and the slot for the counterclockwise rotation is on the right. If the correct slot is used, the spring will start in one slot and pass the second before it has made a quarter of a turn. When using the newer drive cups the same hole is used for both rotations.

To replace the drive spring in the drive cup insert the outer eye of the spring as far as possible into the proper slot. Next, take the drive cup spacer which contains the slot for the inner eye, insert a large screwdriver in the center hole so it will bind, and the drive cup spacer can be turned with the screwdriver acting as a handle. Insert the inner eye of the spring slot in the drive cup spacer and wind the spring around the spacer until the spiral closes sufficiently to allow the spring to slide inside the drive cup (See Figure 116). This method of winding the spring eliminates any possibility of distorting or scratching the spring surface. The spring may be more easily inserted if the lugs of the drive cup are securely held in a vise.

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Magneto Overhaul Service (continued)

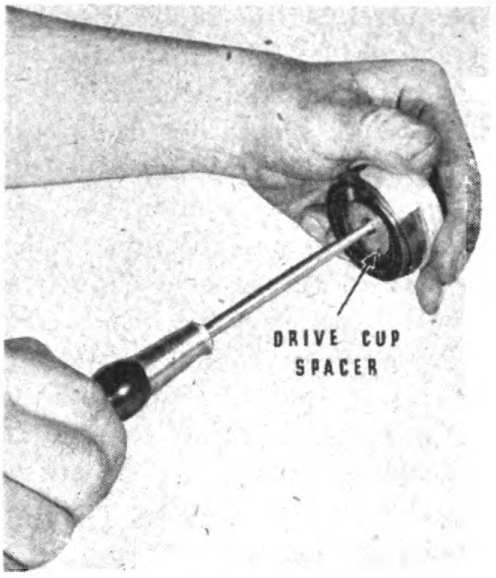


Figure 116
Winding the Spring before Sliding into Cup

To reassemble the drive cup and spring to the magneto, proceed as follows: First make certain that all parts are clean and there is grease between the turns of the impulse drive spring. Then put the brass and steel spacing washers into the drive cup with the inner eye of the spring in the notch provided in the washer (See Figure 117). Now place the drive cup with the spring and the spacing washers on the shaft. Press the parts together, hold the impulse cup out far enough so that the projection on the drive cup clears the flange and then give the cup a full turn as follows: Make a half turn and allow the cup projections to lock against the driven flange, then, with a fresh hold on the drive cup, make the other half turn. When the cup is wound, press it firmly into place and apply a small amount of grease to the bearing surface of the impulse lock nut.

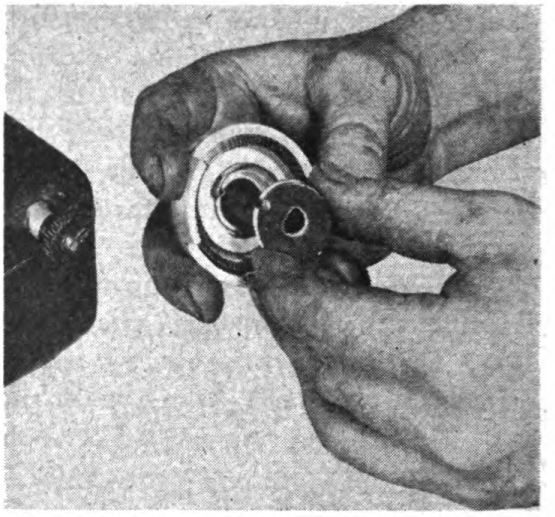


Figure 117
Placing Spacing Washers in Drive Cup

g. *DRIVEN FLANGE GROUP AND TRIP ARMS*—After having removed the impulse lock nut, drive cup, drive spring, and various spacing washers, the driven flange group may be removed. If the flange sticks, insert two screwdrivers 180° apart, under the flange and gently pry it off (See Figure 118). When replacing the driven flange group, make certain that it is pressed on to the shaft as far as it will go. Since the flat on the rotor shaft is

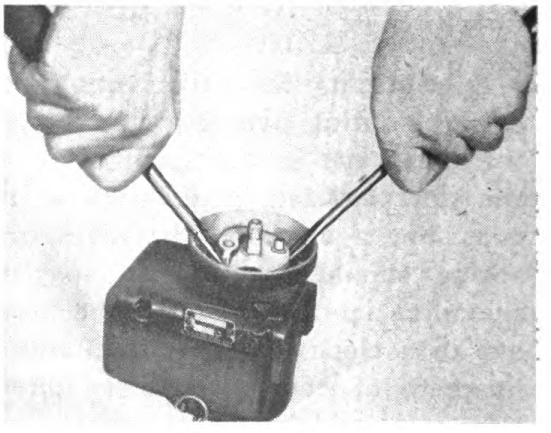


Figure 118
Prying off Driven Flange

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Magneto Overhaul Service (continued)

slightly tapered, being larger at the rotor end of the shaft, it is often necessary to press the driven flange on with considerable force or to gently tap it into place with a soft-headed hammer. Driven flange groups are furnished without the trip arms.

To remove the trip arm, clamp the driven flange in a vise, push the point of a knife between the snap ring and the trip arm pivot, near the opening of the snap ring. This will spring the snap ring a little and then, by inserting a knife in between the snap ring and pivot as far from the opening as possible, the ring may be pulled off. Now the trip arm may be taken off. It is recommended that a new snap ring be used if the old one becomes damaged in the process of removal.

The simplest method of putting on a new snap ring is to take a socket wrench, or a similar device of a size slightly larger than the pivot. Put the ring on the pivot and press down on the ring with the open end of the socket wrench.

h. ***IMPULSE STOP GROUP*** —The impulse stop group used on the model C magneto serves not only to hold the driven flange group and rotor stationary while the impulse is winding up, but also contains an oil seal which prevents the lubricating oil, used in the magneto, from leaking out and also prevents foreign matter from entering the magneto. The stop lug should be on the left hand side of the magneto viewed from the drive end. When it is necessary to replace the oil seal, the impulse stop group must be replaced as a unit.

In replacing the impulse stop group, it is recommended that a new impulse stop gasket be used rather than replacing the old gasket.

i. ***LAG ANGLE ADJUSTMENT***—After the impulse coupling has been reassembled, it is necessary to adjust the impulse lag angle, which provides retarded spark for starting. The position of the impulse stop group determines the lag angle of the magneto which should be 27°-30°.

To set the lag angle, loosen the four impulse stop group clamp screws at the outer edge of the stop group and turn as follows: The impulse stop plate has stamped on its face two witness marks 180° apart, one of which is used for clockwise and the other for counterclockwise magnetos. These marks serve to register against corresponding marks 5° apart on the main housing, acting as a guide to the amount of rotation

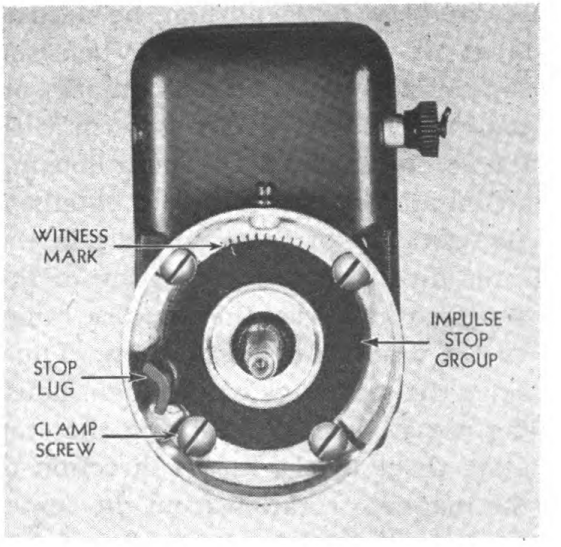


Figure 119
Lag Angle Adjustment

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Magneto Overhaul Service (continued)

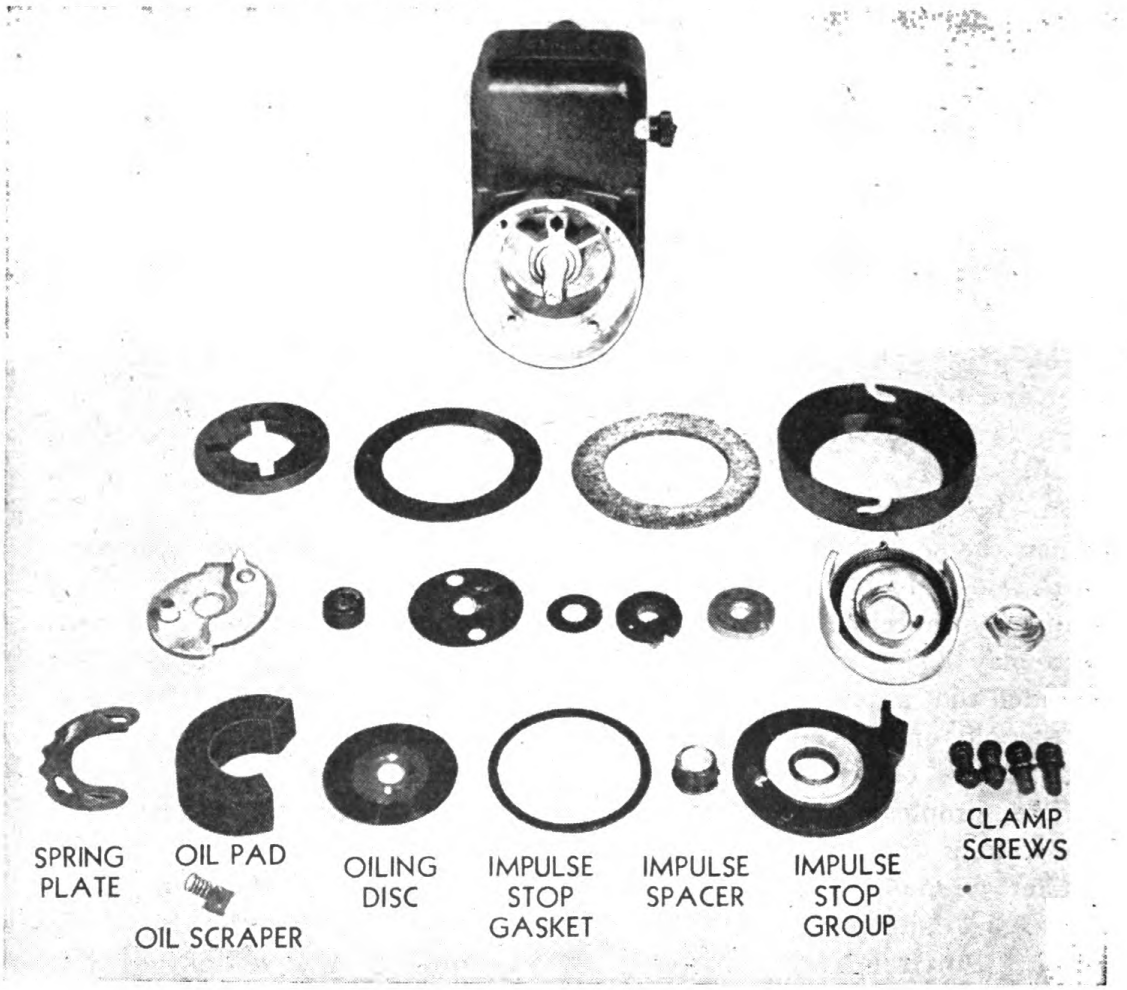


Figure 120—Impulse Coupling Parts Removed

of the stop plate during the adjustment of the lag angle. When the counterclockwise witness mark on the impulse stop group is even with the center mark on the main housing an impulse range of 13° is obtained. The rotation of the stop plate in the same direction as the rotation of the magneto increases the impulse range by the amount of its rotation. Thus, since the markings on the main housing are 5° apart, by turning the stop plate three marks in the direction of the magneto rotation from the center mark will produce a range of approximately 28°. After adjustment has been made, be certain to tighten the impulse stop group clamp screws.

It is important that the lag angle be correctly adjusted to 27°-30° to insure the most efficient performance of the engine.

j. *OIL SYSTEM PARTS*—After the impulse stop group and all other impulse coupling parts have been removed, the impulse spacer and oiling disc may be removed from the rotor shaft. Then remove the main oil pad and the oil pad spring plate. After this the oil scraper unit may be removed from the main housing.

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Magneto Overhaul Service (continued)

When reassembling first insert the oil scraper unit (See Figure 121) in the hole provided, making certain that the scraper itself is in the groove and does not get caught and lay over the oil hole, causing the oil circulation to be stopped. The oil pad spring plate should have sufficient tension in the spring to hold the main oil pad securely against the oiling disc. The oil pad should be thoroughly saturated with S.A.E. 10 oil before installing in the magneto. Next, replace the oiling disc and the impulse spacer.



Figure 121
Inserting Oil Scraper

k. *ROTOR*—The ability of magnet steel to retain its magnetism is known as its coercive property. The magnet steel used in the model C rotors has such extremely high coercive value that it is practically impossible for these rotors to lose any appreciable amount of magnetism under any condition.

Great care should be taken when handling the rotor outside of the magneto to see that no metallic chips adhere to it, and before reinstalling the rotor it should be thoroughly examined to make certain that it is absolutely clean.

(1) *Replacement of Rotor Bushing*—In order to replace the bushings in a model C housing it is necessary to have certain tools and fixtures, known as the rebushing tool. Nearly all distributors have one of these rebushing tools and it is suggested that you take the housing to the nearest distributor who does have one rather than send them directly to the Wico Electric Company.

In cases where the housing has been damaged inside, or the rotor bearing tube has been worn to such an extent that the bushings will not fit tightly, or excessive wear has taken place on the end of the tube, or the tube is loose in the housing, a new main housing will have to be supplied at the regular price.

4. Engine Overhaul Service (Disassembly and reassembly for servicing valves, pistons, bearings, oil pump, etc.):

a. *PRELIMINARY DISASSEMBLY OPERATIONS:*

(1) Drain oil from base of engine.

(2) Remove air cleaner.

(3) Close fuel shut-off valve ("A" Figure 122).

(4) Disconnect fuel line at "B" Figure 122.

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Engine Overhaul Service (continued)

(5) Remove fuel tank by taking out two screws.

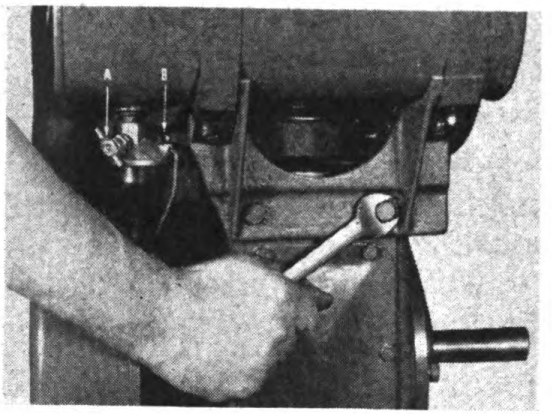


Figure 122
Removing Fuel Tank Mounting Screw

(6) Detach cable from spark plug, remove two nuts, and lift off air shroud cover.

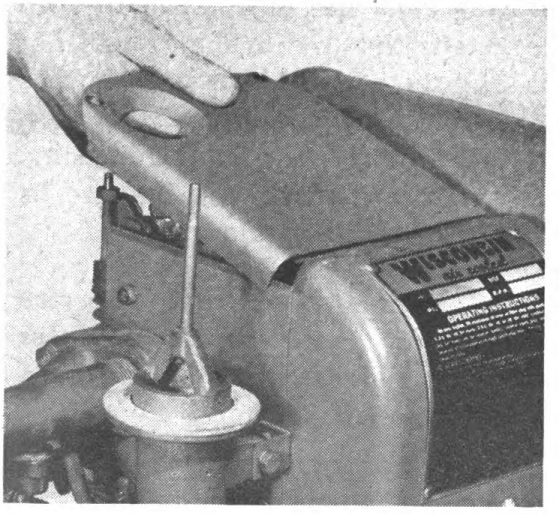


Figure 123
Removing Air Shroud Cover

(7) Disconnect breather line (at "A" Figure 124) from air intake pipe.

(8) Loosen screw holding air intake pipe to carburetor.

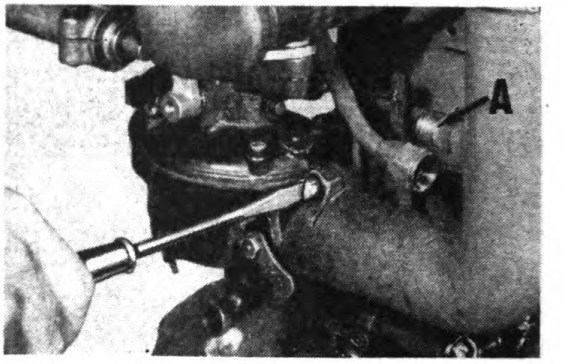


Figure 124
Loosening Air Intake Pipe Screw

(9) Remove screw holding air intake pipe to shroud, and lift off pipe.

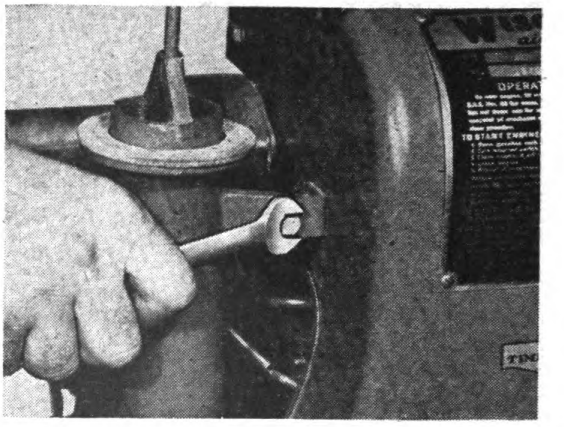


Figure 125
Removing Screw Holding Air Intake to Shroud

(10) Unscrew starting pulley (right hand thread).

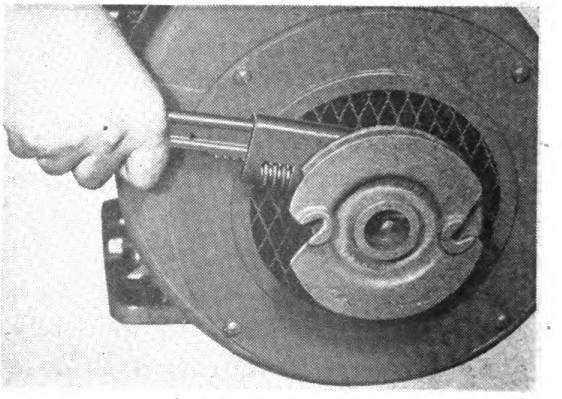


Figure 126
Removing Starting Pulley

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Engine Overhaul Service (continued)

(11) Remove flywheel screen (four screws and speed nuts).

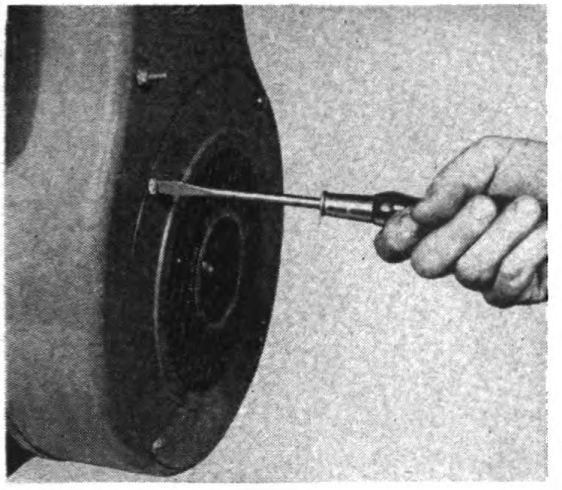


Figure 127
Removing Flywheel Screen

(12) Pull flywheel. A Woodruff key is used to prevent flywheel from turning on shaft.

(13) Remove all remaining air shroud retaining screws, unhook governor spring (See Figure 51) and pull off shroud.

(14) Remove spark plug (Refer to Page 18 of Operator's Manual for testing, setting gap, and other information).

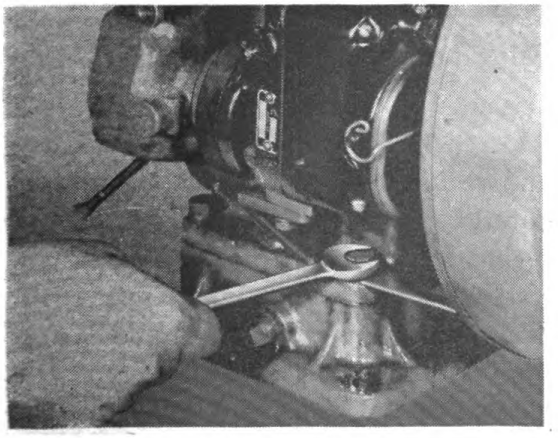


Figure 128
Removing Screw Holding Air Shroud Bracket

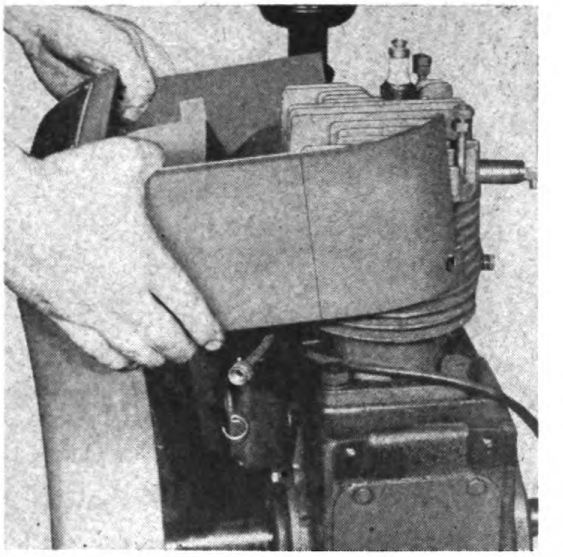


Figure 129
Removing Air Shroud

b. *TO SERVICE VALVES:*

(1) Remove cylinder head (six screws). Condition of valves can now be checked. Carbon deposits prevent valves from seating, causing loss of compression and power.

(2) Remove carburetor, manifold, and exhaust muffler as a unit by disconnecting fuel line from carburetor inlet elbow, removing cot-

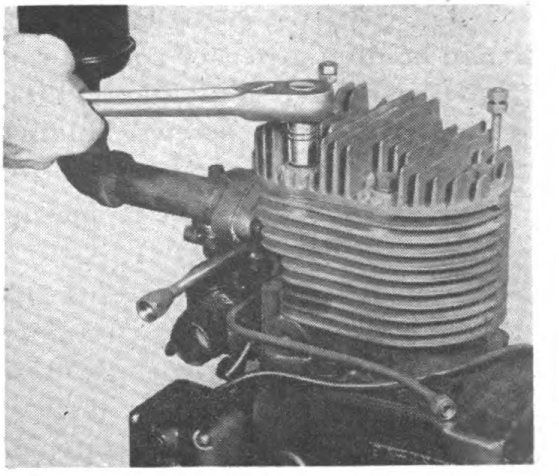


Figure 130
Removing Cylinder Head Screw

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Engine Overhaul Service (continued)

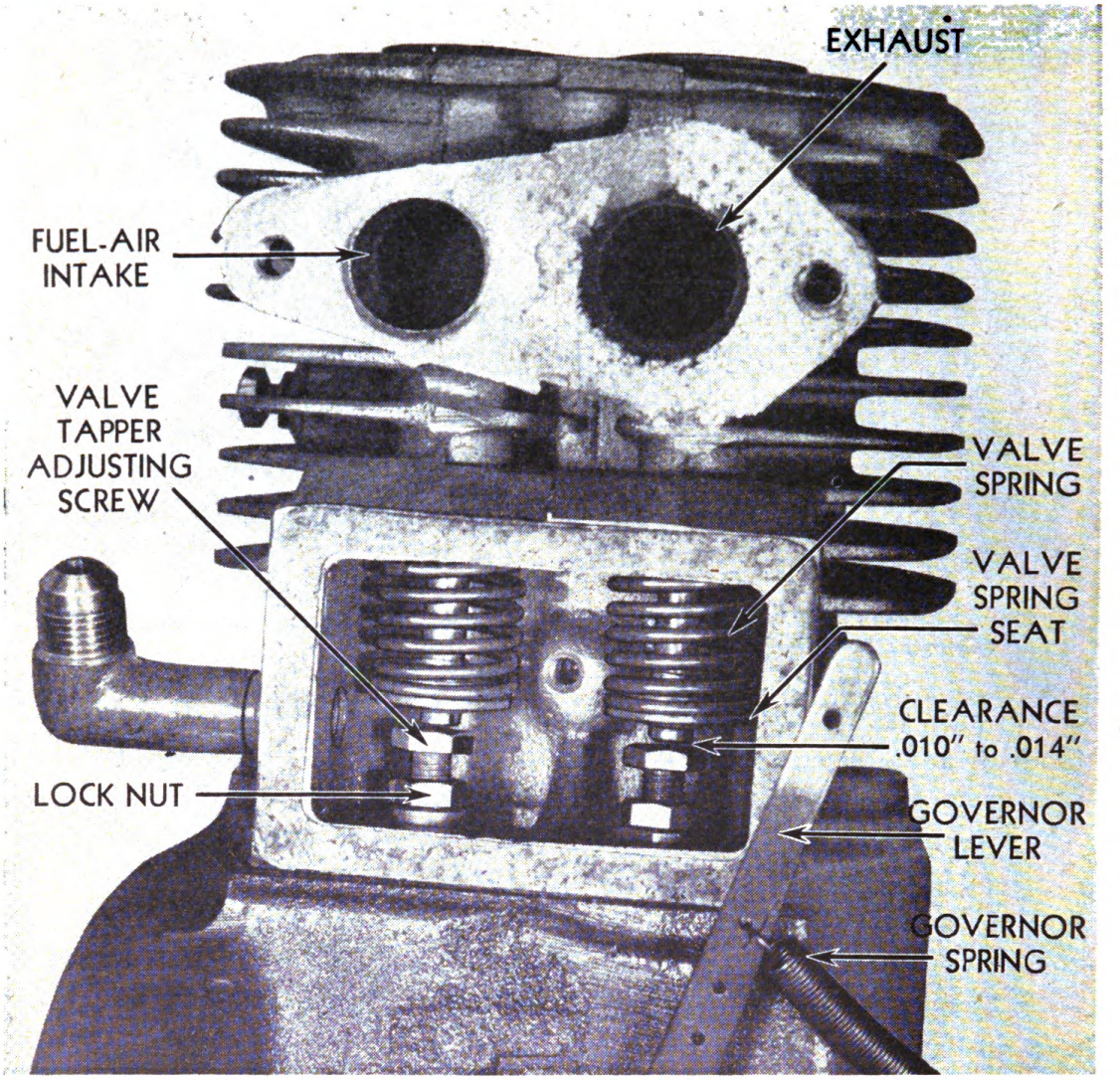


Figure 131—Valve Tapper Inspection Plate Removed

ter pin holding governor control rod in governor lever (See Figure 101), and removing two screws holding manifold to cylinder.

(3) Remove valve tapper inspection plate (one screw).

(4) To remove or grind the valves, the valve spring retainer locks, valve seats, and springs must be removed. To reseat the valves, grind in the same manner as automobile valves. If valves are badly pitted, they should be replaced with new valves. Remove carbon from valve stems.

(5) After grinding valves and reassembling valve springs, seats, and retainer locks, the valve tappers should be adjusted. The proper clearance between valve tapper adjusting screw and valve stem is .010" to .014" (when valve tapper is in downward position). The smaller clearance is for engines running on light or intermittent loads, and the greater clearance for heavy work.

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Engine Overhaul Service (continued)

c. *TO SERVICE PISTON RINGS AND CONNECTING ROD BEARINGS:*

(1) Remove base of engine from crankcase (four screws).

(2) Remove cotter pins and slotted nuts at lower end of connecting rod. Piston and connecting rod assembly can now be removed through top of cylinder.

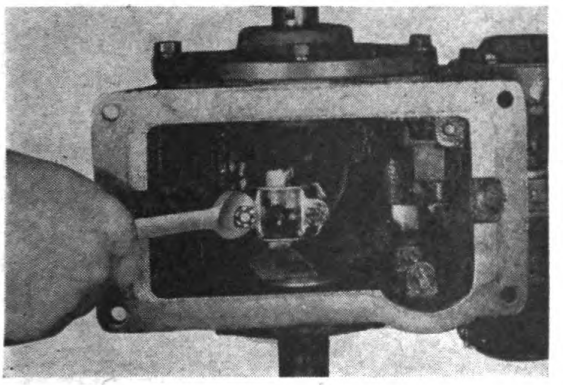


Figure 132
Removing Connecting Rod Nut

(3) Remove piston rings. Piston is fitted with three compression rings (upper) and one oil regulating ring. Clean carbon out of all grooves.

(4) Place piston rings in cylinder and check gap, which should be .007″ to .017″. If excessive, replace rings.

(5) To remove connecting rod from piston, remove steel wire snap rings in the piston bosses, and slip pin out of piston. The piston pin is a light press fit in the piston.

(6) Clean and inspect piston pin, bushing, and connecting rod bearings for wear and scoring. Connecting rods in which the bearings have been burned out but which are otherwise complete and in condition to be rebabbitted should, if possible, be returned to Wisconsin Motor Corporation for trade-in allowance.

(7) When assembling connecting rod to crankshaft, be sure to use proper number of shims under cap to obtain a perfect fit.

d. *TO SERVICE CRANKSHAFT, MAIN BEARINGS, OIL PUMP, CAMSHAFT, OR GOVERNOR:*

(1) Loosen set screws and remove belt pulley with a wheel puller.

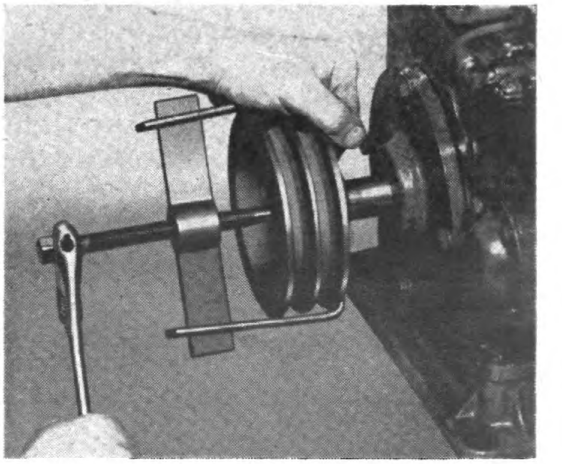


Figure 133
Removing Belt Pulley

(2) Remove main bearing plate (four screws).

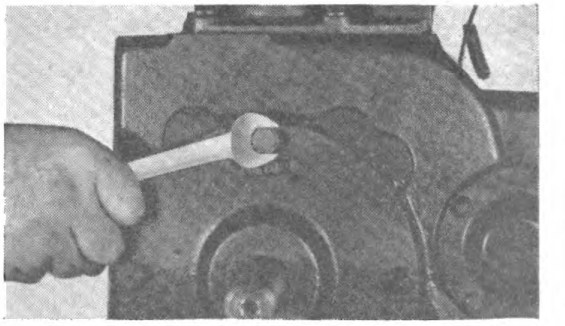


Figure 134
Removing Main Bearing Plate

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Engine Overhaul Service (continued)

(3) Pull crankshaft, bearings, and gear assembly out of crankcase.

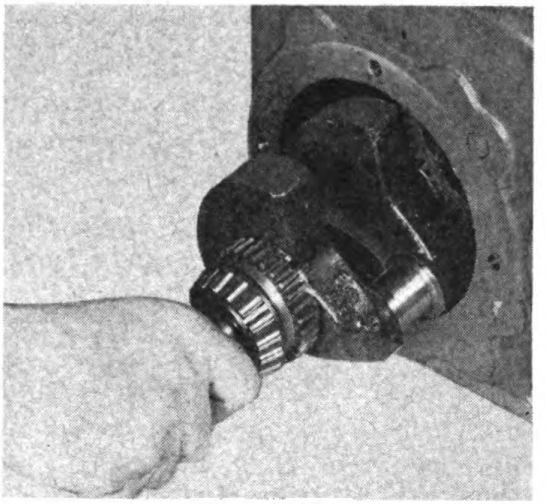


Figure 135
Removing Crankshaft

(4) The cones of the two Timken main bearings are a tight press fit on the crankshaft. The outer races or cups of the Timken bearings are carried in the bearing plates. The bearing plate at the power take-off end is fitted with several shims for adjusting the bearings. The bearings are properly fitted at the factory with .006" end play when the engine is cold. It is very seldom necessary to change this adjustment for wear.

(5) Examine camshaft and gear, governor, and oil pump parts. Remove plate (four screws) exposing magneto gear. Replace any gears with broken or badly worn teeth.

(a) To remove governor, take out cotter pin and governor retaining pin ("A" Figure 137). The governor may then be easily slipped off the shaft and removed as a unit. The governor shaft is pressed into the crankcase wall and should not be removed.

When replacing governor be sure that flat steel washer is put on shaft before governor.

(b) To remove camshaft and gear, drive out Welsch plug at opposite end by applying a drift punch on exposed end of camshaft pin (at "A" Figure 136).

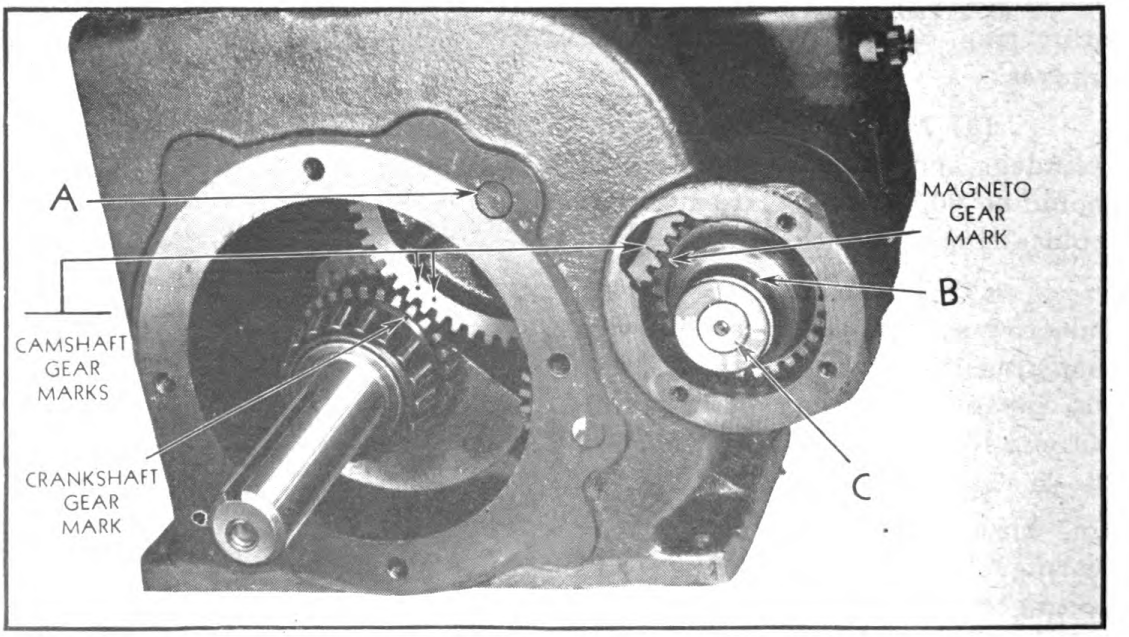


Figure 136—Proper Locations of Witness Marks when Assembling Gears

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Engine Overhaul Service (continued)

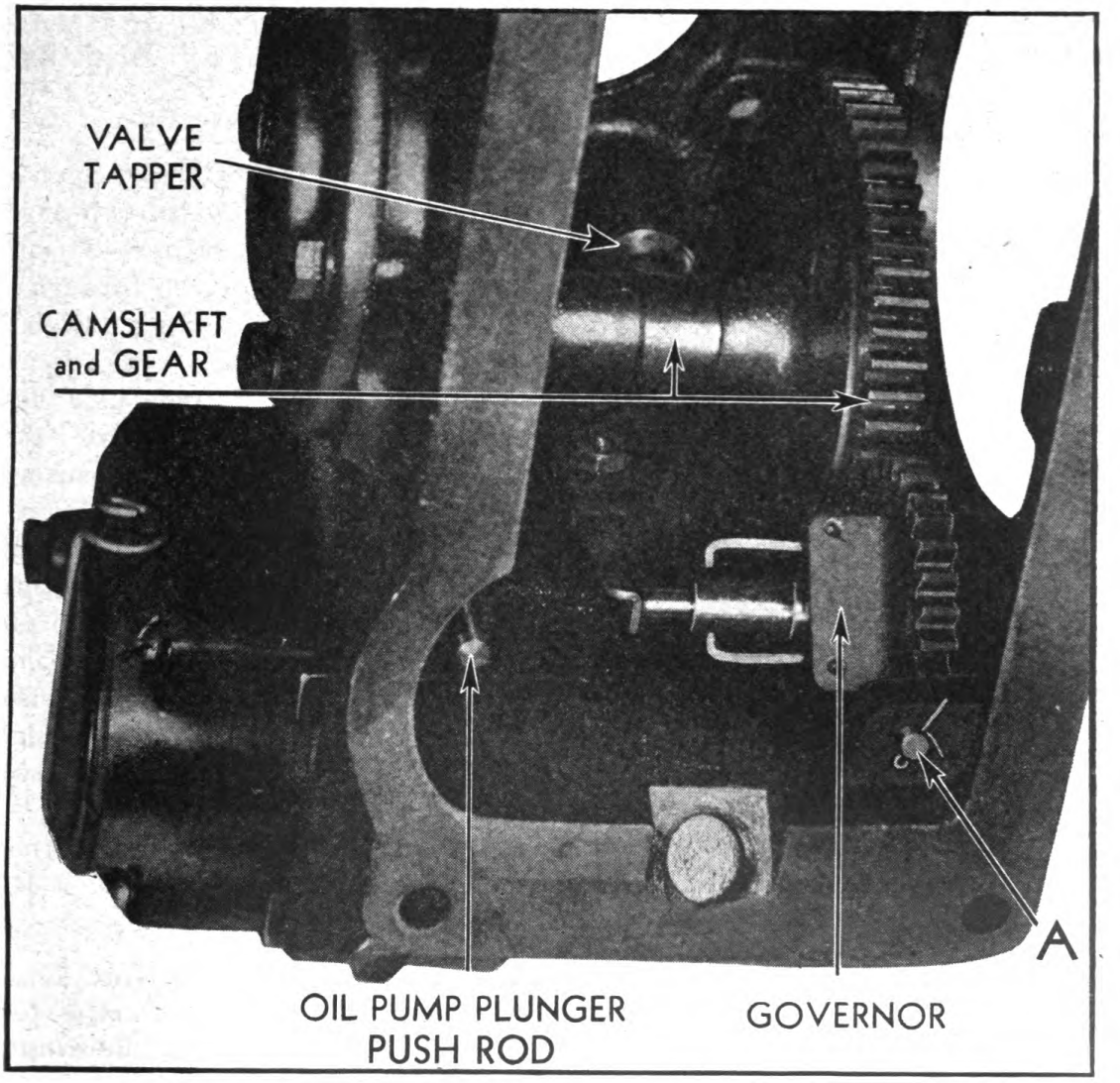


Figure 137—Interior View of Crankcase (Crankshaft Removed)

(c). The oil pump is of the plunger type, formed integral with the splash trough ("A" Figure 138) in the base of the engine. The plunger ("B" Figure 138) is held up against the push rod (See Figure 137) by a spring ("C" Figure 138). The up or suction stroke of the pump is by this spring, and the down or discharge stroke is by the driving eccentric on the camshaft which forces the push rod down.

Two ball check valves are used in the pump, which should be cleaned and inspected when the base is removed. The upper ball check valve is located inside the plunger ("B" Figure 138). The lower ball ("D" Figure 138) seats at the bottom of the splash trough inlet.

The screen ("E" Figure 138) can be removed and cleaned by taking out splash trough retaining screws ("F" Figure 138).

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Engine Overhaul Service (continued)

When reassembling oil pump, be sure that retainer is inside lower end of spring to hold ball near its seat, and that plunger ("B" Figure 138) is installed with the large open end on top so that push rod rests against cross pin.

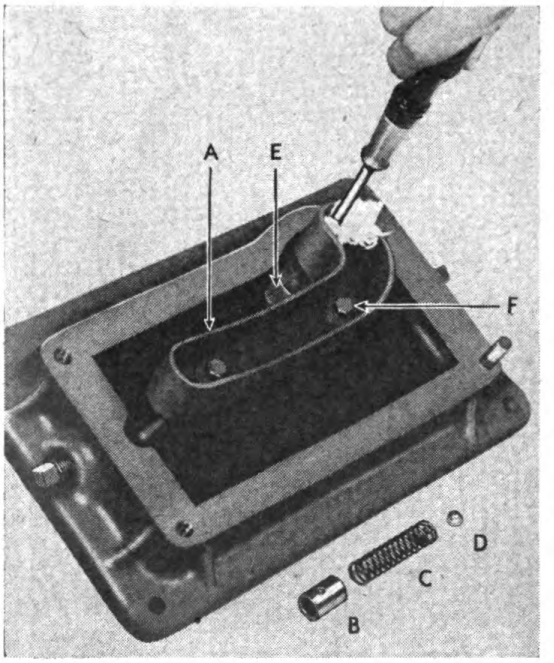


Figure 138
Cleaning Oil Pump Check Valve Seat

(6) IMPORTANT: When placing crankshaft, bearings, and gear assembly back in crankcase, be sure that mark on crankshaft gear is meshed between two marks on camshaft gear, and that single mark on camshaft gear lines up with mark on magneto gear (See Figure 136). **This is necessary to keep engine in time.**

Before replacing magneto drive gear cap, be sure that bronze spacer is over end of shaft ("C" Figure 136).

B.

Air Compressor and Receiver

1. Description:

The Quincy Model H-320 Special Unit consists of a vertical two-stage (bore—4" and 2½", stroke—3") air cooled compressor driven through a multiple Vee belt drive by a gasoline engine. It is equipped with special controls which simultaneously unload compressor and actuate the automatic throttling device causing engine to idle when pressure in receiver reaches 175 pounds. When pressure drops below 160 pounds this action is reversed, so that air pressure is maintained between 160 and 175 pounds. The compressor also automatically remains unloaded until the engine reaches full load speed (1800 R.P.M.) when started.

The compressor base plate is rubber cushion mounted on a 14" x 44" ASME air receiver.

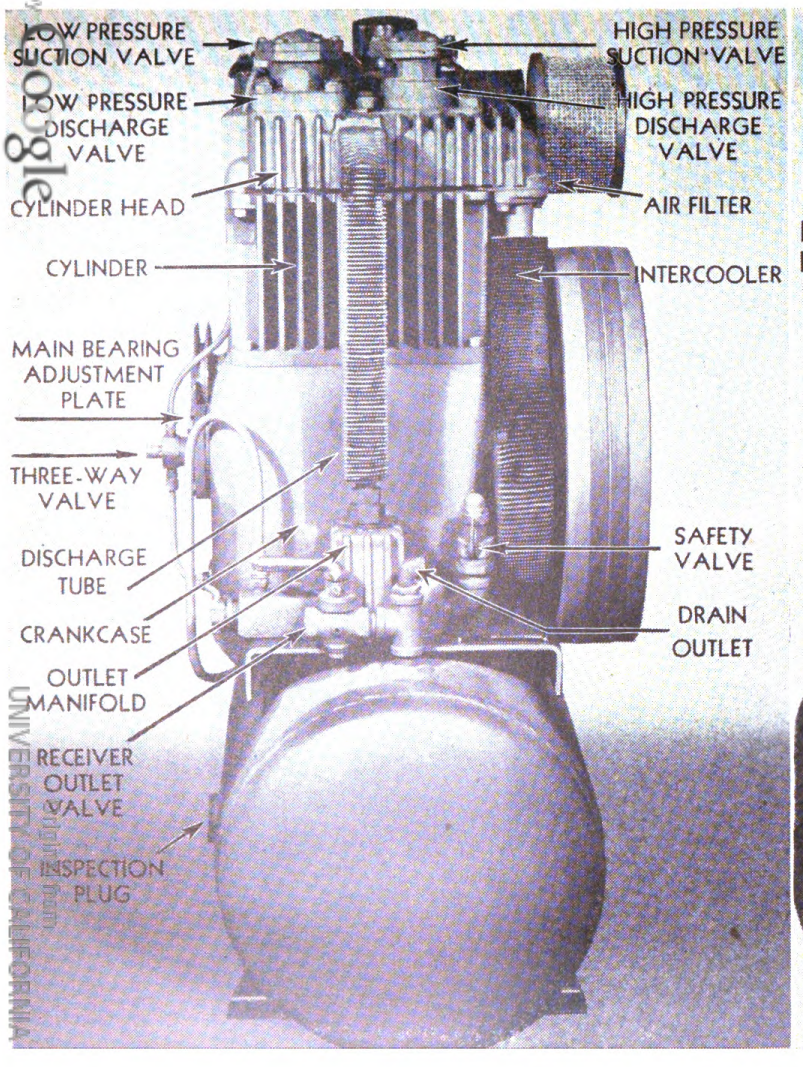
2. Compressor Overhaul Service (Disassembly and reassembly for servicing valves, pistons, bearings, etc.):

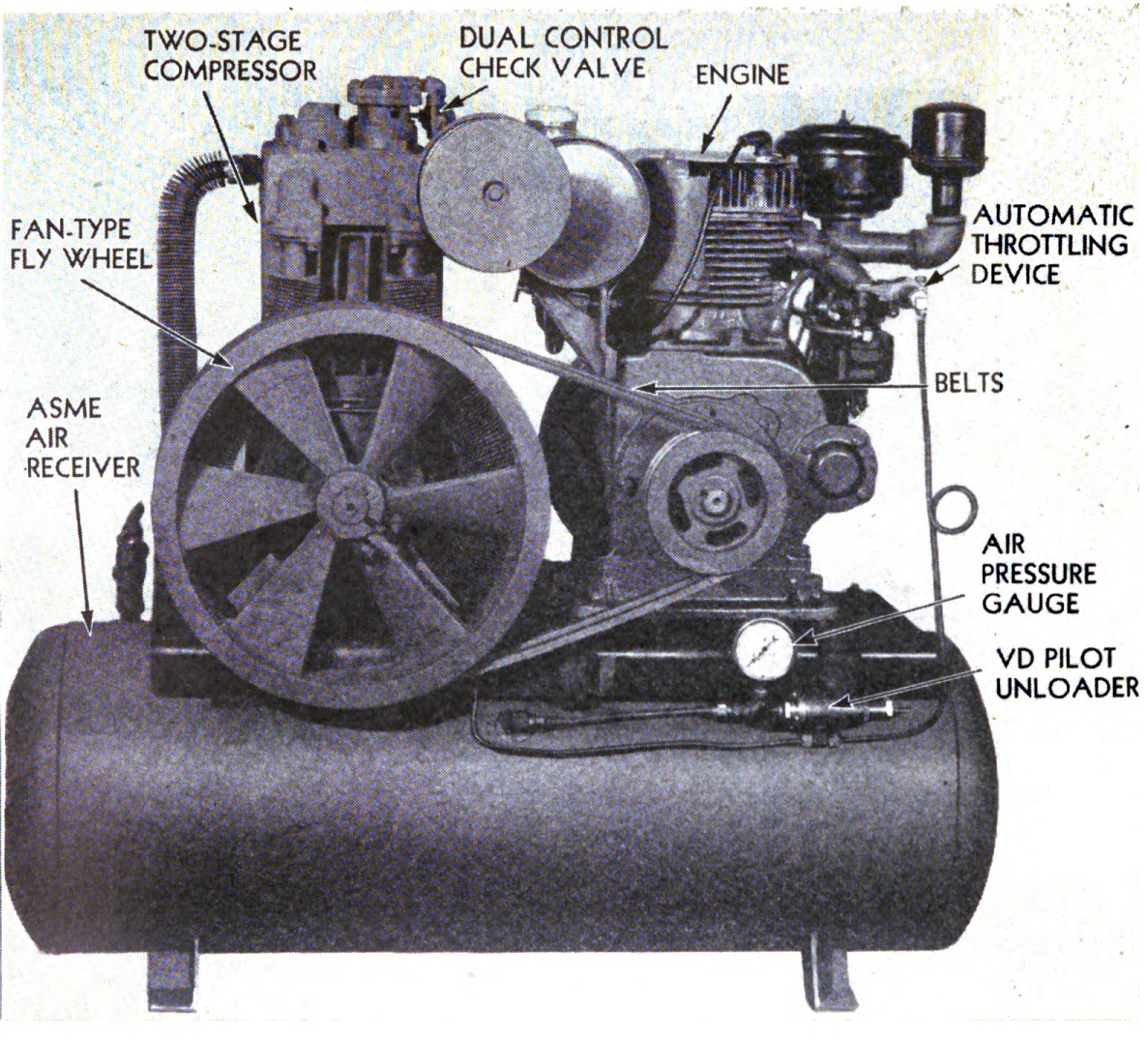
a. *VALVES*—Each cylinder has two valves—one intake (suction), and one discharge. Each valve assembly consists of the valve disc itself ("A" Figure 144), the valve seat ("B" Figure 144), the valve springs ("C" Figure 144), and valve bumper ("D" Figure 144). The suction valve assembly is installed with the spring underneath the valve. The valves are opened by air passing through them and closed by the springs and air pressure.

If the compressor does not operate as efficiently as when new, even

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Compressor Overhaul Service (continued)

though there are no leaks in fittings or service line and the compressor is operating at the proper speed, probably some foreign matter has lodged between valve discs and seats, preventing valves from seating properly. To service valves proceed as follows:

(1) Release all air pressure from receiver (See Figure 43).

(2) Each valve assembly is located in a separate pocket in cylinder head, and is held in place by a threaded sleeve or lock screw.

(a) The low pressure discharge valve assembly may be removed by taking off lock nut, loosening lock screw (See Figure 140), and then removing the four cap screws holding cover plate to cylinder head.

(b) To remove the high pressure discharge valve assembly unscrew the cover cap and lock screw (See Figure 141).

(c) To remove the low and high pressure suction valve assemblies, detach tubing from diaphragm cover, remove diaphragm cover screws (See Figure 142), and unscrew diaphragm bodies.

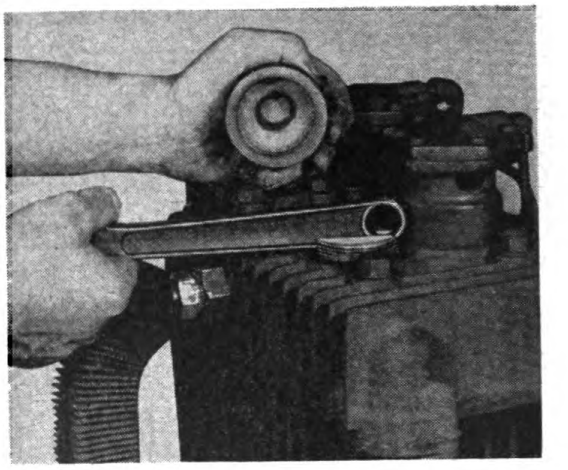


Figure 141
Removing High Pressure Discharge Valve Lock Screw

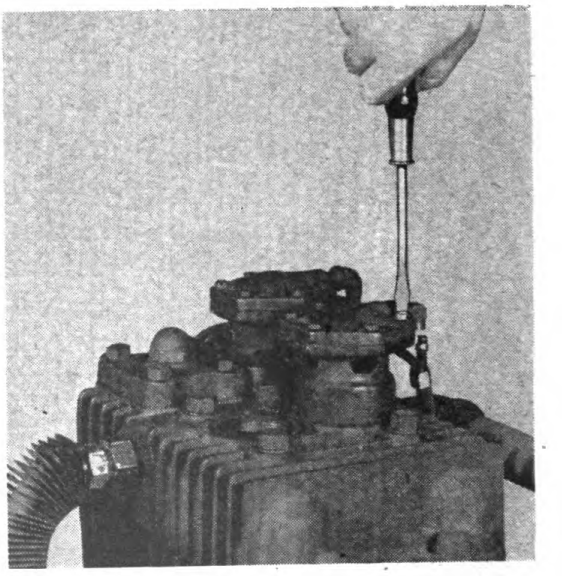


Figure 142
Removing Diaphragm Cover Screw

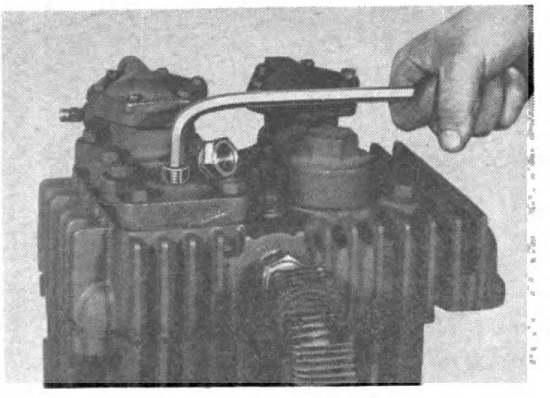


Figure 140
Loosening Low Pressure Discharge Valve Lock Screw

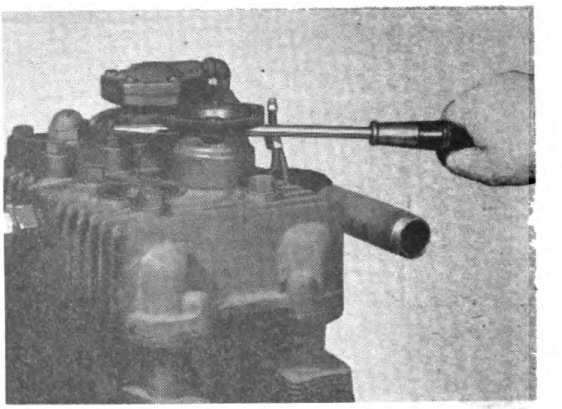


Figure 143
Removing High Pressure Diaphragm Body

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Compressor Overhaul Service (continued)

Each entire valve assembly can be lifted easily from the valve pocket and disassembled in a vise. To dismantle the low and high pressure discharge valve assemblies, remove cotters. Clean the entire assembly and replace, making sure that each assembly is put back in the correct pocket and that the correct side is up (Refer to Figures 144, 145 and 146). The springs must be on the top side of the valve disc of the discharge assembly, whereas, in the suction assembly the spring is installed underneath the valve disc. Each spring should be examined carefully before the assembly is put back in the head to make sure it has life enough to snap the valve disc back on its seat quickly. Gaskets must be assembled in their original positions and, if cracked or broken, should be replaced. All parts subject to wear are renewable. Do not attempt to grind valves or seats.

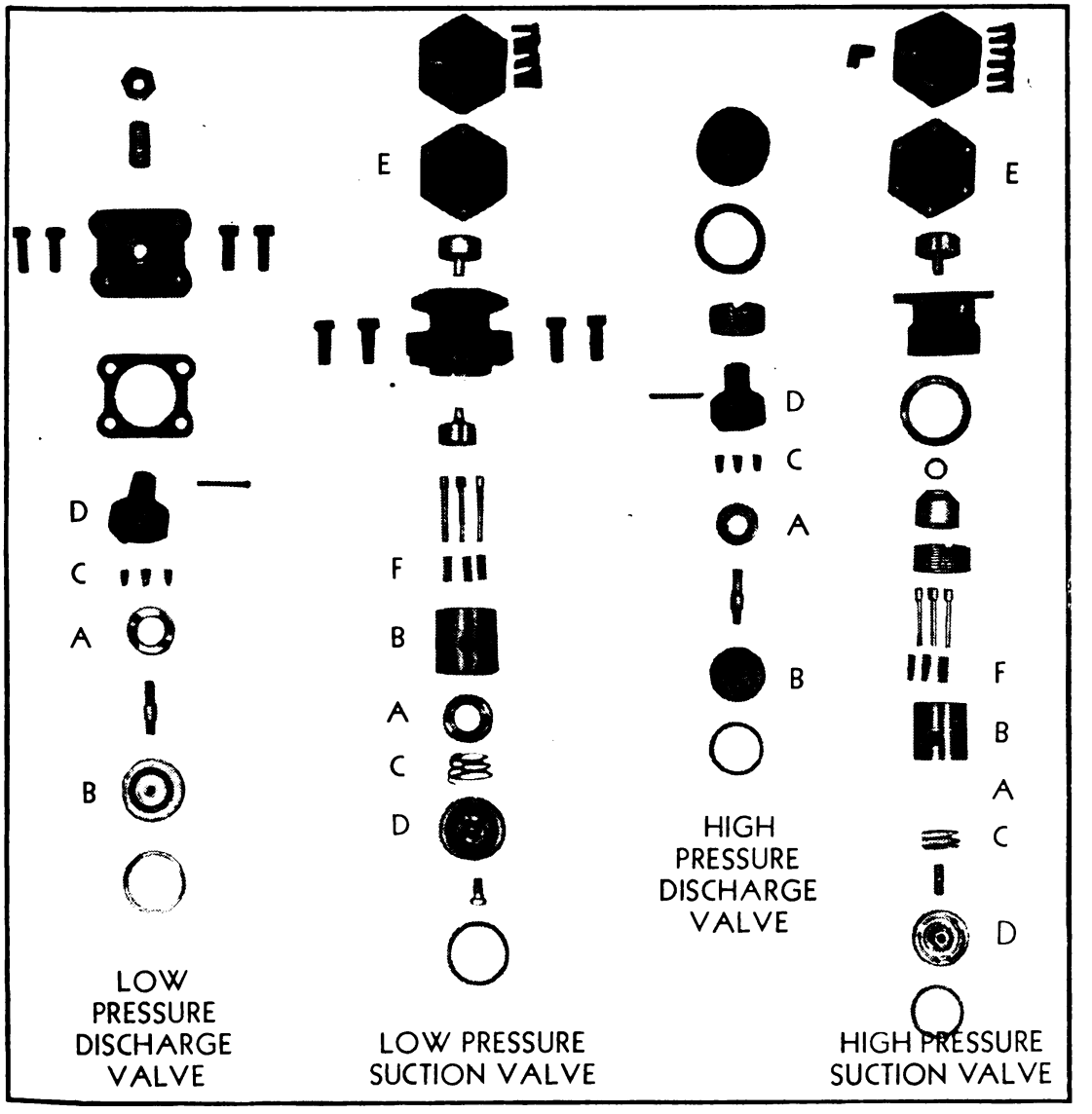


Figure 144—Compressor Diaphragm Arrangements and Valves Disassembled
A—Disc. B—Seat. C—Spring. D—Bumper. E—Diaphragm. F—Kickoff Spring.

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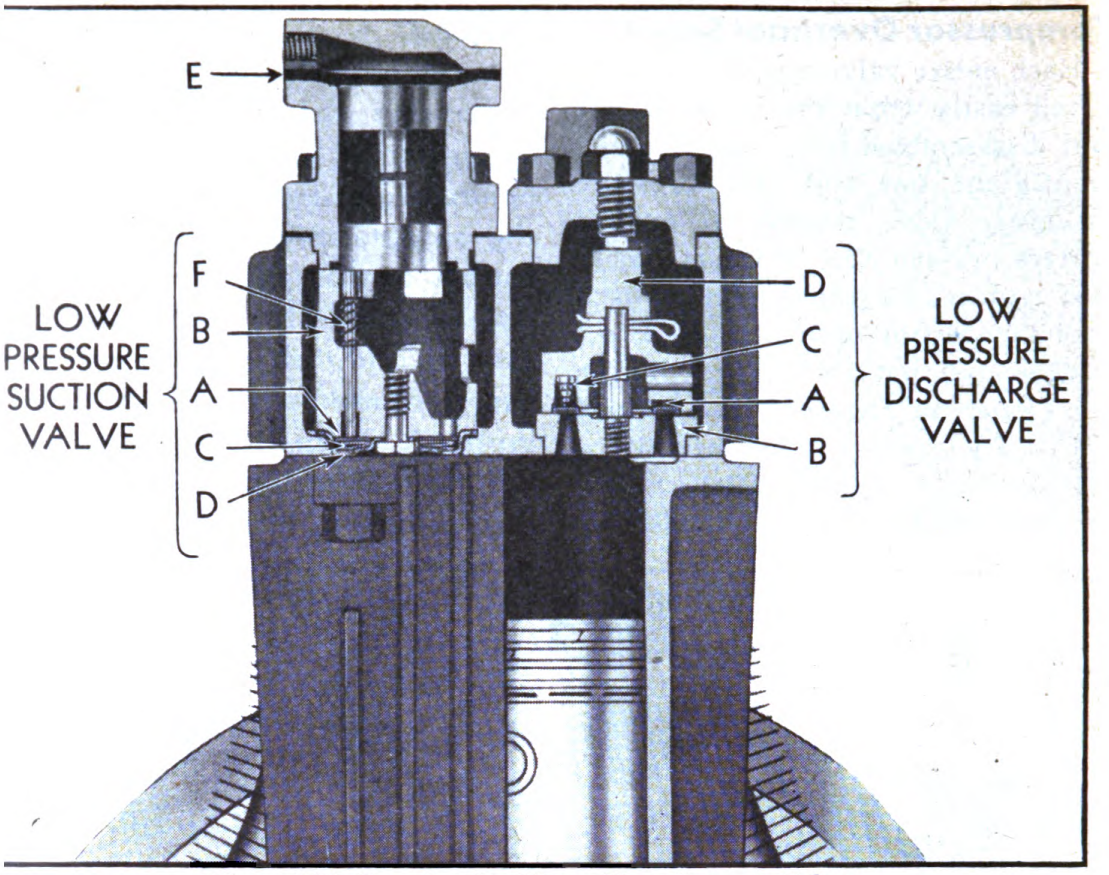


Figure 145—Cross Section View of Low Pressure Valves

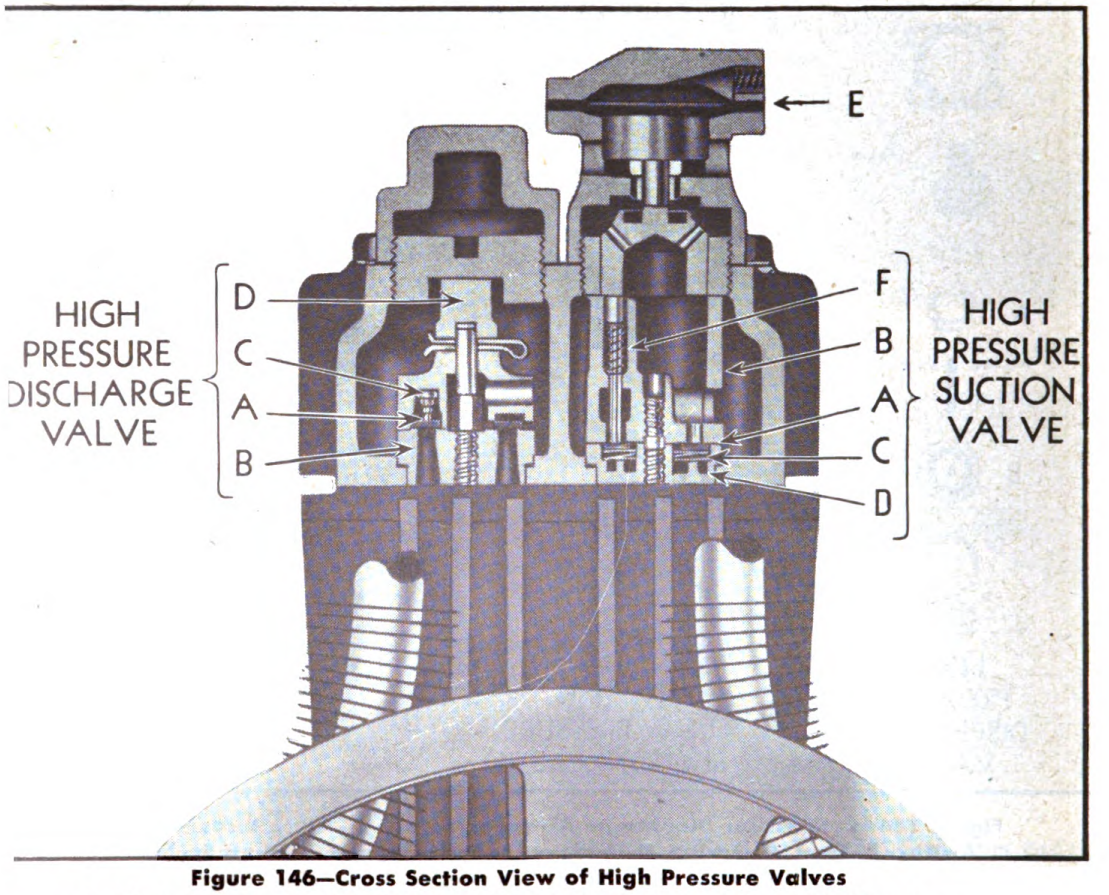


Figure 146—Cross Section View of High Pressure Valves

A—Disc. B—Seat. C—Spring. D—Bumper. E—Diaphragm. F—Kickoff Spring.

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Compressor Overhaul Service (continued)

b. *DIAPHRAGMS*—The diaphragm arrangements will seldom require attention. Should the diaphragms ("E" Figures 144, 145 and 146) become cracked or hardened, they should be replaced at once. If leaky, they will prevent the kick-off pins from pushing the valves off their seats, resulting in the compressor not unloading properly. Kickoff springs should be carefully examined and, if they have lost their tension, they should be replaced.

c. *PISTONS, PISTON RINGS, AND CONNECTING RODS*—In order to service the pistons the following disassembly operations are necessary:

(1) Disconnect discharge tube from cylinder head. Two large wrenches are required.

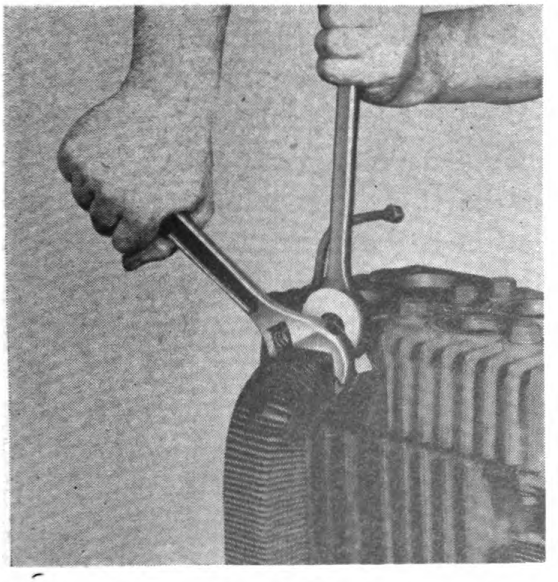


Figure 147
Disconnecting Discharge Tube from Cylinder Head

(2) Remove four screws holding intercooler to cylinder head.

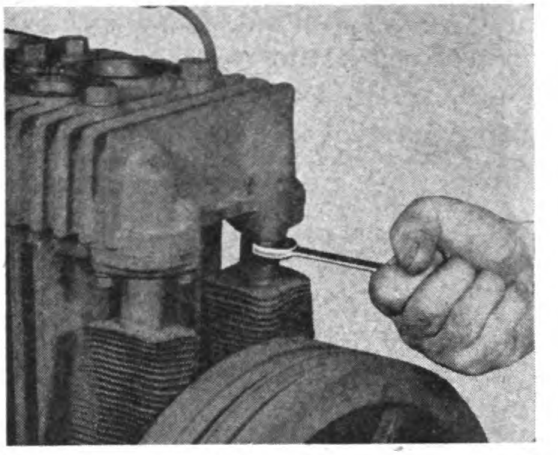


Figure 148
Removing Intercooler Screws

(3) Remove six cylinder head screws—four on top and two underneath.

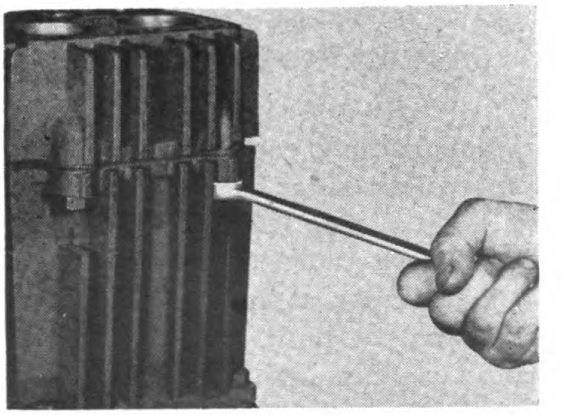


Figure 149
Removing Lower Cylinder Head Screw

(4) Remove crankcase inspection plate (six screws).



Figure 150
Removing Inspection Plate Screw

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Compressor Overhaul Service (continued)

(5) Pull out safety wire and remove connecting rod screws (See Figure 151). Pistons and rods can then be removed from top of cylinder.

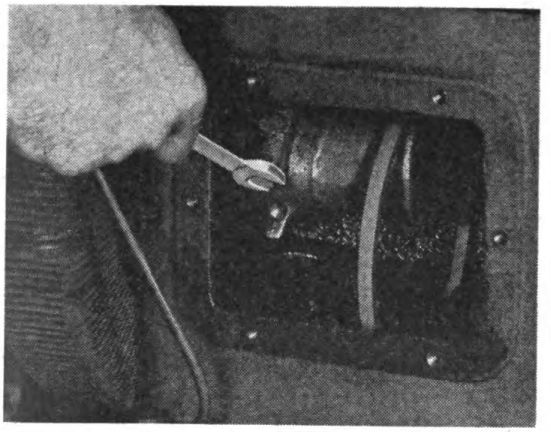


Figure 151
Removing Connecting Rod Screw

Each piston is equipped with three compression rings (upper) and one oil control ring (See Figure 152). The low pressure (large) piston is fit to cylinder at about .002″ clearance, and the high pressure (small) piston is fit to cylinder with about .0015″ clearance. After long operation rings should be examined and, if worn excessively, replaced. Cylinder walls should be examined for wear to determine if oversize rings should be used, or if the cylinders should be rebored. If slots in oil control rings are filled with carbon or dirty oil, they should be thoroughly cleaned before they are reinstalled.

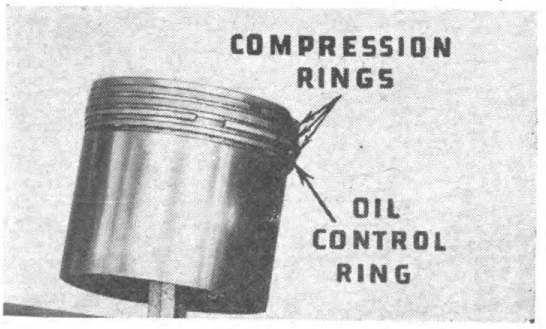


Figure 152
Low Pressure Piston

Each connecting rod has a hard rolled bronze bushing on piston pin end and a renewable babbitted bearing at crank pin end. *Rod bearings have no adjustment* and, if worn excessively, should be replaced. Connecting rods have extra large well lubricated bearings and are assembled with .0015″ to .002″ clearance so that there is always a cushion of oil between bearing and shaft. No shims are used.

d. *BEARINGS AND CRANKSHAFT* — Each end of crankshaft is provided with Timken roller main bearings and should require no attention for a very long period of time. If any looseness should develop, remove one or more of the thin brass shims located under the adjustment plate opposite the flywheel end of the crankshaft. After removing one shim, replace the adjustment plate, draw up on its screws tightly, and then try turning the compressor over by hand to make sure bearings are not too tight. If the compressor does not turn as easily as it did before the shim was removed, the adjustment will have been unnecessary, and the shim will have to be replaced.

If necessary to remove crankshaft, continue the disassembly as follows:

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Compressor Overhaul Service (continued)

(1) Remove oil circulating ring retainer.

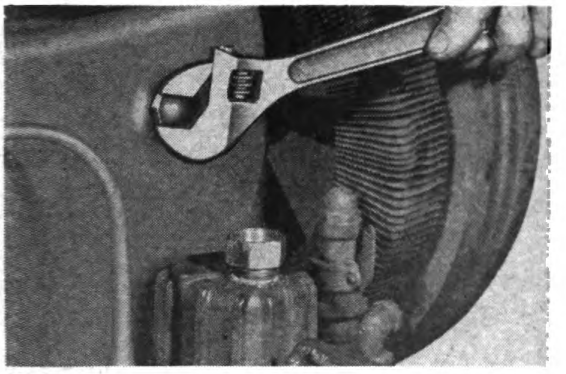


Figure 153
Removing Oil Circulating Ring Retainer

(2) Remove four bearing carrier screws.

(3) Pull out flywheel and crankshaft assembly.

CAUTION: Be careful not to break oil circulating ring when removing crankshaft. Be sure that this ring is in place when crankshaft is replaced.

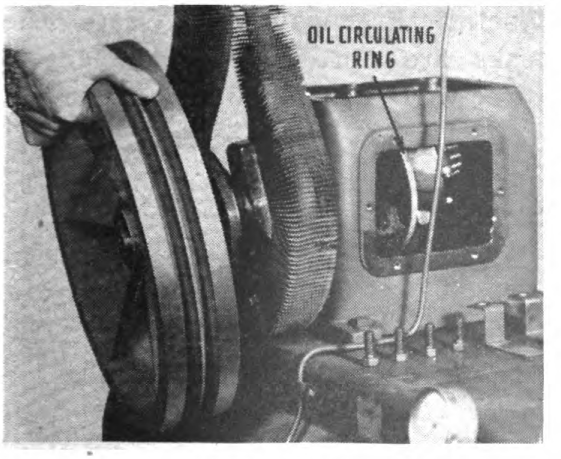


Figure 154
Removing Crankshaft

(4) If necessary to replace a bearing cup, a convenient method of removing oil cup from bearing carrier is shown in Figure 155. The bearing carrier is held in a vise and one man holds screwdriver while other drives against screwdriver with punch.

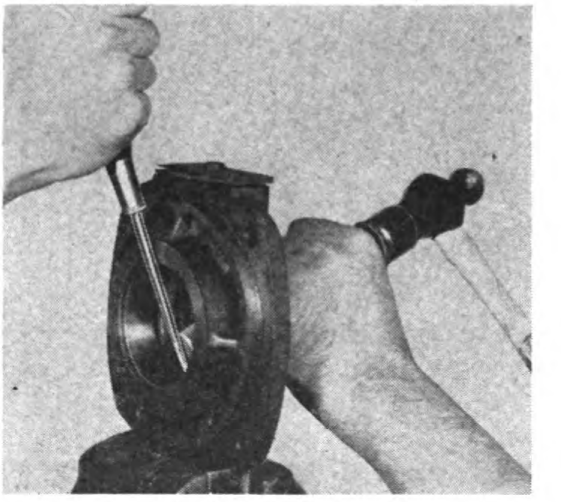


Figure 155
Driving Timken Bearing Cup from Carrier

e. *THREE-WAY VALVE AND GOVERNOR* — (Loadless Starting Mechanism) — The Three-Way Valve has two valve discs—an inner and an outer valve disc. When the compressor is stopped or engine is idling, inner valve must be tight and the outer valve must be open (disc off its seat).

The push button and push rod of the three-way valve are held in their outer position (outer valve open) when the compressor is stopped or engine is idling by the centrifugal governor plunger in the end of the crankshaft (See Figure 156). When the compressor restarts centrifugal force causes governor flyweights to move to their extreme outward position. This relieves all pressure on plunger which is forced inward after compressor has reached operating speed and in turn push button moves away from inner valve allowing it to

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Compressor Overhaul Service (continued)

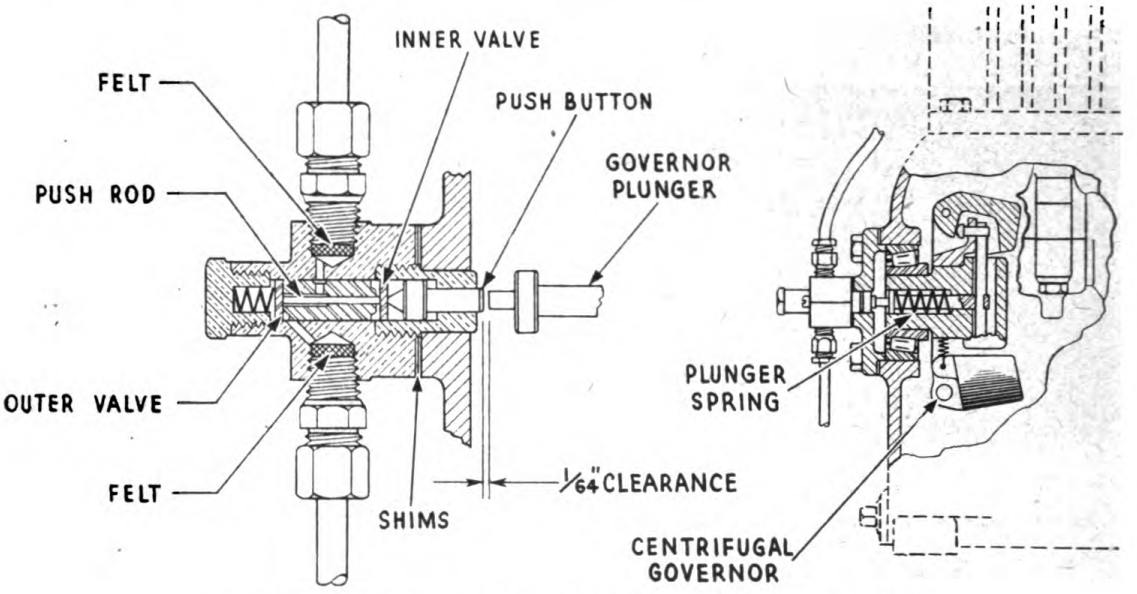


Figure 156—Cross Section of Three-Way Valve and Governor

open. Push rod also moves inward causing outer valve to close, thus preventing any air from receiver to escape through Three-Way Valve onto valve diaphragms. This action permits all air that has been trapped over diaphragms to gradually leak past the push rod and escape into the compressor crankcase. This allows compressor inlet (suction) valves to reseat permitting compressor to reload (pump air into receiver).

CAUTION: Don't tamper with three-way valve if compressor loads and unloads properly.

(1) IMPORTANT! Correct amount of shims ("A" Figure 157) must be inserted behind three-way valve. Too few shims will cause outer valve to be forced open resulting in compressor being partially or totally unloaded. Too many shims will prevent push rod from opening outer valve, therefore compressor will not be unloaded resulting in engine starting against load.

(2) If inner or outer valves leak they should be thoroughly washed with gasoline or replaced. Any leak at inner valve will cause engine to start against load, as air trapped over diaphragms will escape resulting in compressor inlet (suction) valves reseating. If, after replacing three-way valve seats, the leaks are not stopped, the entire three-way valve should be replaced.

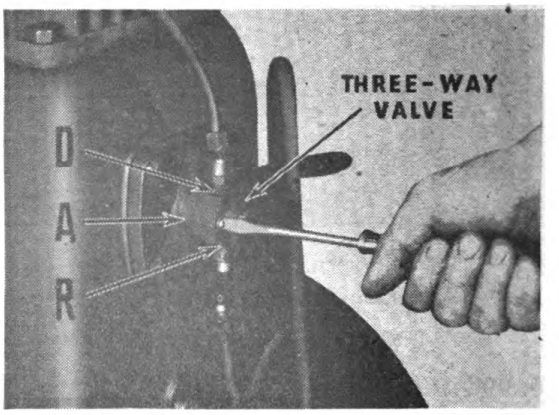


Figure 157
Removing Three-Way Valve

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Compressor Overhaul Service (continued)

(3) Check for leaks at tubing connections to three-way valve. If leaks cannot be stopped by tightening or with use of sealing compound, fittings should be replaced.

(4) Check felts and if found dirty wash with gasoline or replace.

(5) When replacing Three-Way Valve Assembly be sure that connection marked "R" (receiver) is down, and connection marked "D" (diaphragm) is up (See Figure 157).

(6) Plunger spring (See Figure 156) and governor flyweight springs (See Figure 158) should be replaced if they are broken or have lost their tension. Damaged springs will interfere with proper operation of loadless starting mechanism.

(7) If necessary to remove governor or Timken bearing from crankshaft, proceed as follows:

(a) Remove flyweight springs.

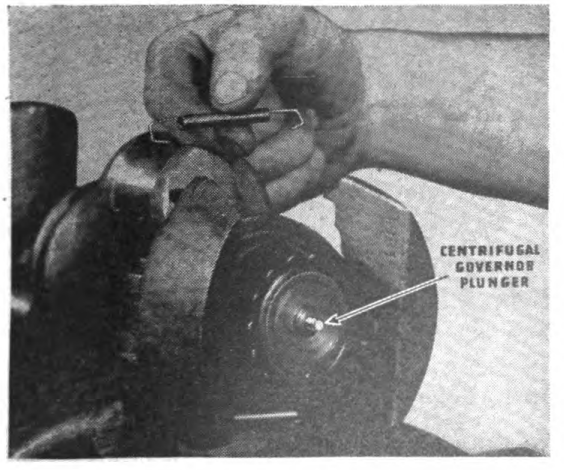


Figure 158
Governor Flyweight Spring Removed

(b) Depress plunger and remove bar. Plunger and spring can now be removed from hole in end of crankshaft.

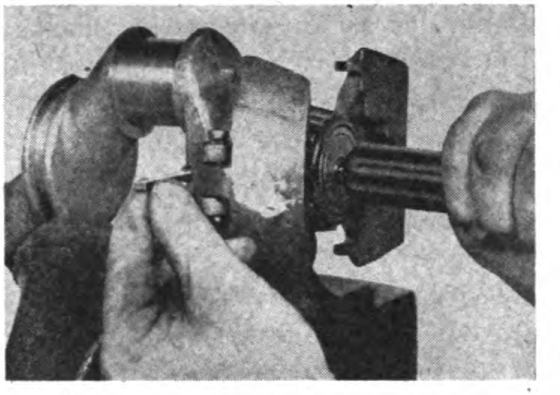


Figure 159
Removing Governor Bar

(c) Use wheel puller to remove governor and bearing from crankshaft.

CAUTION: Place flat piece of metal (See "A" Figure 160) over hole in end of crankshaft to prevent puller from damaging hole.

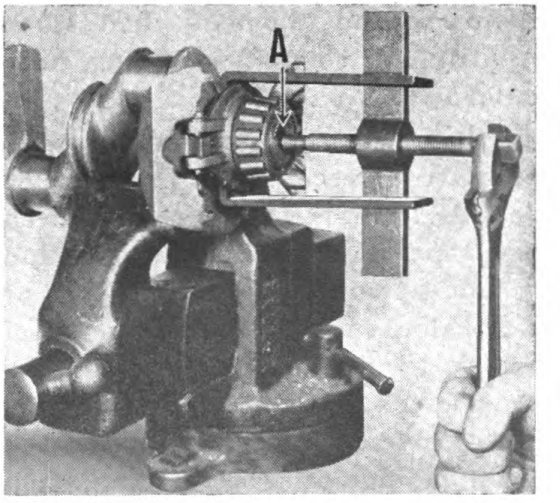


Figure 160
Pulling Governor and Bearing from Crankshaft

f. *VD PILOT UNLOADER AND DUAL CONTROL CHECK VALVE.*

The VD Pilot Unloader permits the compressor to maintain a pressure of from 160 to 175 pounds in air receiver. It automatically regulates the passing of receiver pressure to the

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Compressor Overhaul Service (continued)

diaphragm arrangements so that the inlet (suction) valves are held off their seats whenever the air supply is greater than the demand.

When pressure in receiver reaches 175 pounds (approx.) tension of spring is overcome. Piston is then unseated from cap and instantly seated against body, allowing air pressure from receiver to pass through tee to throttling device moving arm to idling position, and at the same time, to pass through tube leading to dual control check valve. This moves piston of dual control check valve to seat on body allowing air to pass onto diaphragms over both inlet (suction) valves. Air applied to diaphragms causes unloading fingers to contact both inlet valves holding them off their seats, resulting in compressor being fully unloaded.

When air consumption causes pressure in receiver to drop to 160 pounds (approx.) all air is allowed to escape rapidly off diaphragms and to atmosphere from around rod of VD Pilot, causing compressor inlet valves to reseat, resulting in the compressor again pumping air into the receiver.

Unloading can be accomplished manually at any time by tightening wing nut of VD Pilot. This overcomes tension of spring the same as when receiver pressure becomes greater than spring tension. When the compressor is in operation the wing nut should be far enough away from adjustment screw to permit free movement.

(1) VD Pilot was properly set at Factory for a loading pressure of 160 pounds (approx.) and an unloading pressure of 175 pounds. Do not tamper with this setting unless trouble occurs. The unloading pressure is regulated by screw. The differential (between unloading and loading pressure) is regulated by the number of shims.

(2) Occasionally it may be necessary to dismantle the entire Pilot and clean carefully with gasoline. To remove Pilot for cleaning proceed as follows:

(a) Release all air pressure from receiver.

(b) Remove engine rail screw and lug nearest Pilot.

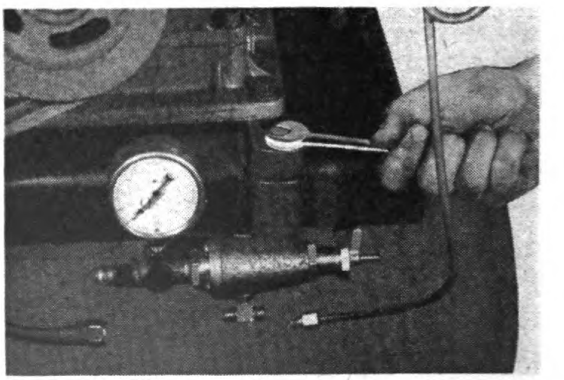


Figure 161
Removing Engine Mounting Lug

(c) Disconnect tubing from Pilot.

(d) Unscrew air gauge and tee.

(e) Remove adjustment screw, rod, and spring (assembled) from Pilot body.

(f) Unscrew Pilot from mounting stud. (See Figure 162.)

(g) Disassemble and clean with gasoline.

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Compressor Overhaul Service (continued)

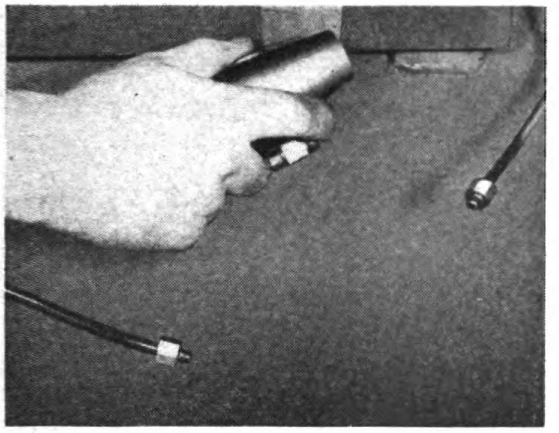


Figure 162
Detaching VD Pilot Unloader From Receiver

(3) If excessive air escapes from around rod when compressor is running *unloaded*, seat of piston on body side is leaking and requires lapping or replacing. (Keep in mind when compressor reloads automatically from VD Pilot, all air trapped over diaphragm is allowed to escape to atmosphere from around rod.) The piston can be reseated by lapping to either body or cap with rouge or finest grade of compound (Cloverleaf 1-A recommended).

(4) If air enters VD Pilot and partially or totally unloads compressor when pressure in receiver is below 170 pounds, seat of piston on cap side is leaking. The piston can be reseated by lapping as described in preceding paragraph.

(5) If air pressure gauge fails to register correctly, replace at once.

The Dual Control Check Valve permits the operation of Loadless Starting (Centrifugal type unloader) and VD Pilot (constant speed unloader) on same unit. The only service that it may require is cleaning, or tightening of connections and screws to stop leaks.

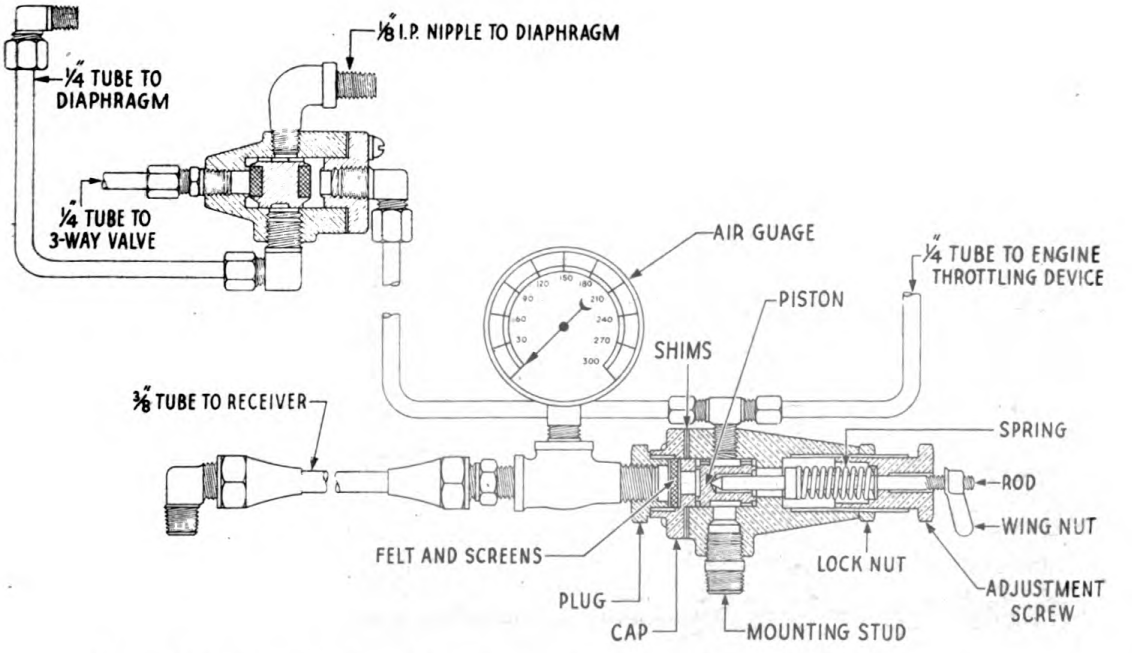


Figure 163—Cross Section of Dual Control Check Valve and VD Pilot Unloader

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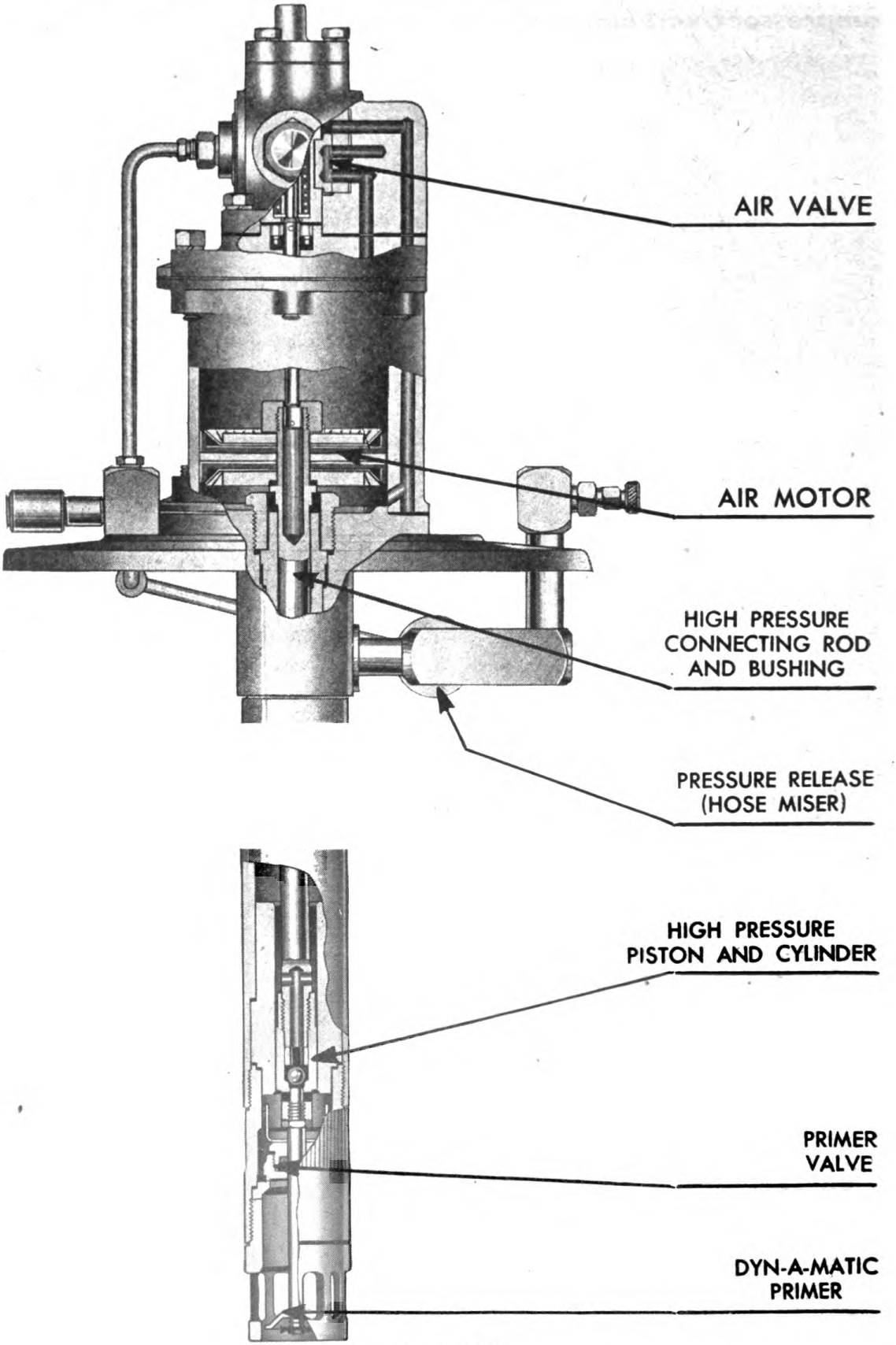


Figure 164
Cutaway View of High Pressure Pump

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C.
LUBRICANT PUMPS

1. Description of Model 7226 High Pressure Pumps (See Figure 164):

These two pumps are powered by compressed air, and deliver lubricant directly from the center compartment of the tank. They develop lubricant pressure approximately 40 times the air pressure used.

The compressed air operates an air motor to which is attached a high pressure pump, which reaches to the bottom of the lubricant tank. The lubricant is pumped at high pressure by a hollow piston closely and accurately fitted into a cylinder. The high pressure check valve ball is located inside the piston, and the primer check valve floats directly below the piston. Positive mechanical priming is added to the normal suction of the pump by means of the Dyn-a-matic Primer. This feature allows the pump to handle all types of viscous, chassis, and fibrous lubricants.

On the upstroke of the motor the first charge of lubricant is pulled up through the primer check valve by the piston and the Dyn-a-matic Primer, filling the primer chamber. On the downstroke the primer check valve closes, trapping the lubricant at this point. The lubricant then passes through the high pressure piston around the high pressure check valve ball, filling the high pressure chamber. The piston rod entering the high pressure chamber displaces lubricant, thereby acting the same as a high pressure piston, forcing lubricant through the outlet into the high pressure hose.

2. Description of Models 7227 and 7228 Low Pressure Pumps:

(The 7227 Gear Pump and 7228 Motor Oil Pump are identical, except for the name plates.)

The low pressure pump has exactly the same air motor as the Model 7226 High Pressure Pump. This air motor is attached to the low pressure pump, which reaches to the bottom of the gear lubricant or motor oil compartment of the tank. The pump consists of a cylinder, piston, and check valves.

On the upstroke of the air motor, with the pump primed, the low pressure piston check valve closes and traps the gear lubricant or oil in the low pressure chamber. As the piston moves upward it forces the lubricant through the outlet into the hose. On the downstroke, the pump is again primed with lubricant for the next upstroke (lubricant is delivered on upstroke only).

An outstanding feature of this pump is that air is eliminated and cannot register on the meter. If any air enters the low pressure pump it is automatically discharged through by-pass holes at the lower end of the cylinder.

3. Pump Overhaul Service:

The lubricant pumps should not be tampered with unless it has been definitely established that they are in need of service. (Refer to Pages 23 and 24 of Operator's Manual.)

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Pump Overhaul Service (continued)

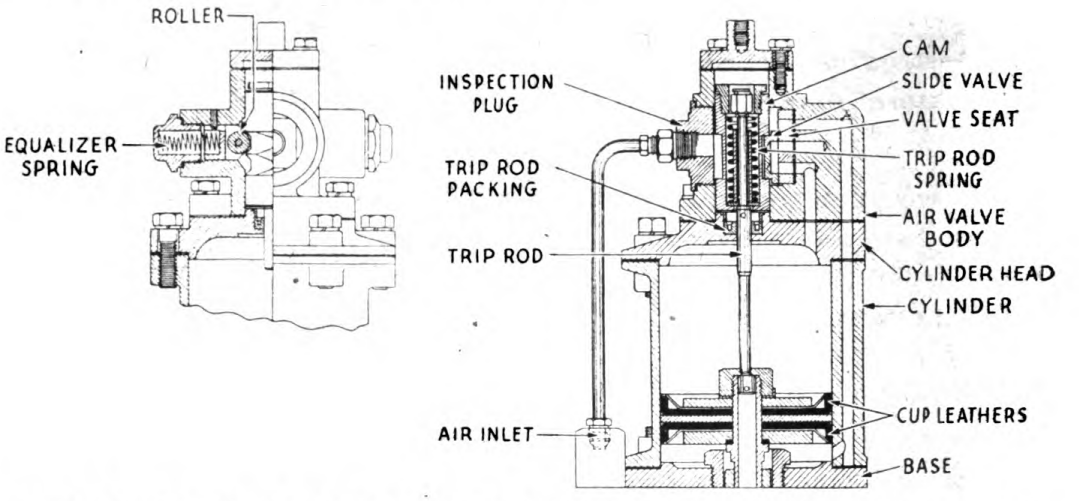


Figure 165—Cross Section of Air Motor (The Air Motors Are Identical on All Four Pumps)

a. ***WHAT TO DO IF AIR VALVE STICKS.***

If the air valve sticks, it is because the equalizer springs or the trip rod spring have lost their tension.

(1) To check the equalizer springs, remove the hexagon plugs ("A" Figure 166) from each side of the air valve body. The springs ("B" Figure 166) can now be removed and inspected.

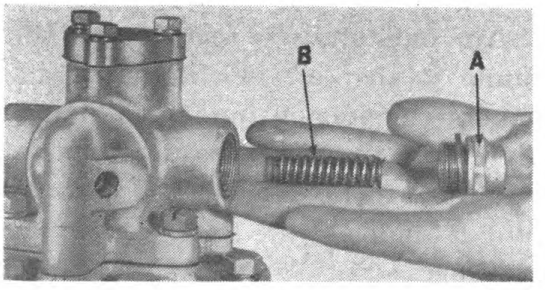


Figure 166
Plug and Equalizer Spring Removed

(2) To check the trip rod spring, disconnect the tube assembly from the air valve inspection plug. Remove the inspection plug ("A" Figure 167) from the air valve body ("B" Figure 167). Remove the air valve body from the cylinder head ("C" Figure 167).

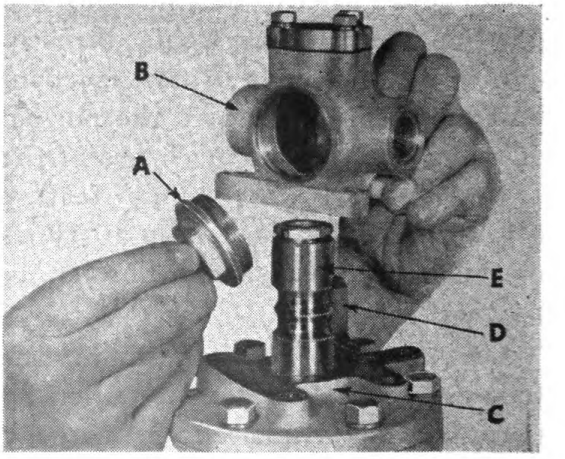


Figure 167
Removing Air Valve Body

Note the position of the slide valve ("D" Figure 167) on the cam ("E" Figure 167) and make sure that this valve is reassembled in the same position.

Remove the hexagon nut from the cam assembly (See Figure 168).

Remove the lock pin and nut from the air valve trip rod (See Figure 169).

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Pump Overhaul Service (continued)

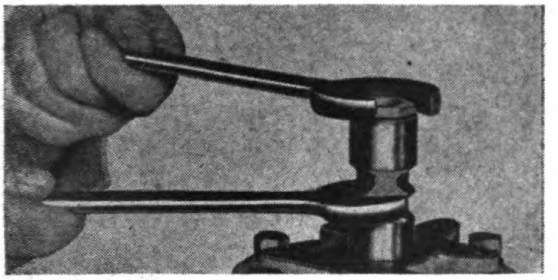


Figure 168
Removing Hexagon Nut from Cam

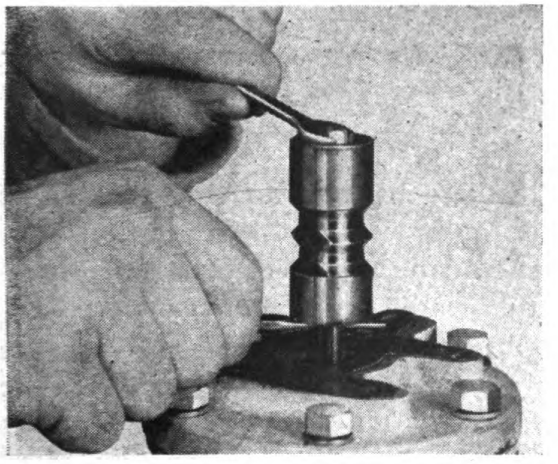


Figure 169
Removing Nut from Air Valve Trip Rod

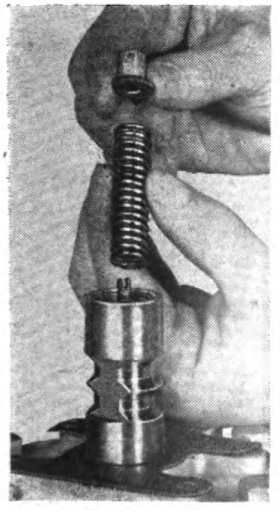


Figure 170
Removing the Trip Rod Spring

A hole has been drilled through the trip rod just below the cam for inserting a small punch to keep the rod from turning while removing the nut. The trip rod spring can now be removed and inspected.

(3) When reassembling, care should be taken to see that all sealing surfaces and gaskets are free from dirt and grit.

b. ***WHAT TO DO IF AIR LEAKS OUT OF EXHAUST.***

This leak may be caused by one of the following reasons:

(1) The air valve is not sealing properly.

(2) The air valve insert gasket is not sealing properly.

(3) The air valve gasket between cylinder head and valve body may be blown.

(4) The air valve trip rod packing is not sealing.

(5) Leakage through main piston cup leathers.

In order to determine whether the air leakage is out of the air valve or passing by the main cup leathers, make a blind gasket to be used between the air valve body and the cylinder head. If air leaks out of the exhaust when air is applied, it is known that the leak is in the air valve. If no air leaks out when a blind gasket is used, the leakage is due to faulty valve rod packing (See Figure 173), main cup leathers, or the gasket (See Figure 174). If the leakage is in the air valve, it can be easily removed for reseating or for replacement of the valve seat gasket.

(a) To reseat slide valve ("A" Figure 171) or replace valve seat gasket ("B" Figure 171), refer to operations a(1) and a(2) page 76. The valve seat and gasket can now be removed.

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Pump Overhaul Service (continued)

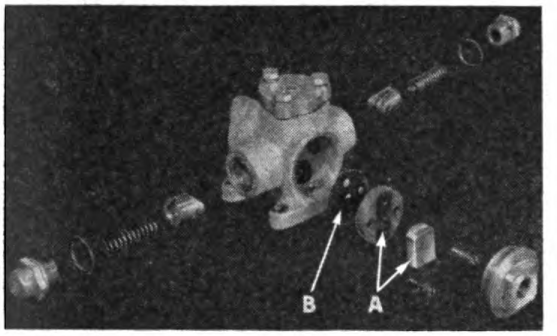


Figure 171
Air Valve Disassembled

(b) The slide valve can be lapped to eliminate an air leak. Use a fine lapping compound or a polishing rouge. The valve and seat must be lapped together with a figure eight motion while revolving seat.

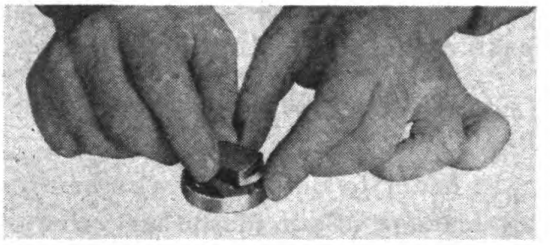


Figure 172
Lapping the Air Valve on its Seat

Always replace the valve seat gasket (See Figure 171). If the valve requires replacement, always replace the valve and valve seat as one unit.

(c) If the air valve gasket between valve body and cylinder head is blown, it must be replaced. Refer to operations a(1) and a(2) page 76.

(d) If the air valve trip rod packing in the cylinder head leaks air it must be replaced. To replace this packing refer to operations a(1) and a(2) page 76. Remove cam and replace packing ("A" Figure 173).

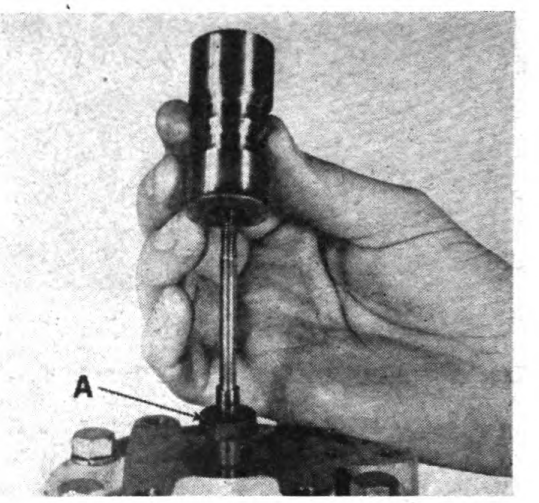


Figure 173
Removing Cam to Replace Packing

(e) If the main cup leathers by-pass air due to lack of oiling or dirt in the air stream, they should be replaced. Refer to operations a(1) and a(2) page 76. Remove the cylinder head ("A" Figure 174) from the cylinder ("B"). Remove the air cylinder from the base casting ("C"). Remove the large hexagon nut ("D") which retains cup leather ("E"), spreaders ("F"), piston plates ("G") and the gasket ("H") from the piston rod ("I").

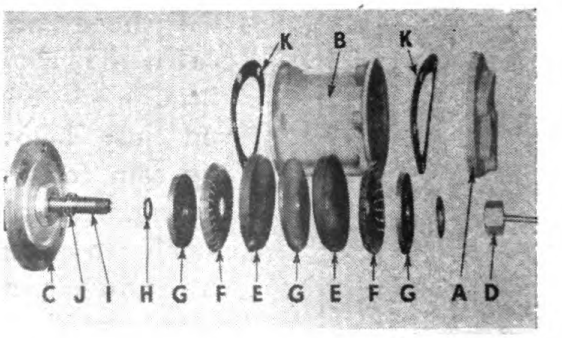


Figure 174
Air Motor Disassembled

Flats have been placed on the piston stop ("J" Figure 174) so a wrench can be used to hold the rod

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Pump Overhaul Service (continued)

in position while unscrewing the large hexagon nut ("D"). The cup leathers and cylinder can now be inspected and replaced if necessary. Make certain that the gasket ("H") is used below the bottom piston plate on the piston rod. This gasket prevents air from leaking along piston rod. In replacing the cup leathers it is advisable to assemble the cup leathers, piston plates, and spreaders in the air cylinder from opposite ends. Air cylinder gaskets ("K" Figure 174) should be replaced when reassembling air motor. Care should be taken that all sealing surfaces and gaskets are free from dirt and grit.

c. *WHAT TO DO IF PUMP OPERATES CONTINUOUSLY WITHOUT BUILDING PRESSURE OR DELIVERING LUBRICANT.*

(1) Check to see if there is lubricant in the tank.

(2) Check the lubricant to be sure that it has not channeled. (Lubricant must be around the foot valve of pump.)

(3) Check the lubricant pressure release valve to determine if the lubricant is by-passing due to dirt lodged on the ball seat. To do this, remove the pump from the tank (See Figure 98) and place in a small container of lubricant. Attach the air hose to the pump. The pressure release valve can now be checked to determine if lubricant is by-passing. If lubricant is by-passing, it will escape through the pressure release outlet port and can be easily noted. If lubricant is by-passing remove the air tube assembly ("A" Figure 175) and the lubricant pressure release valve assembly.

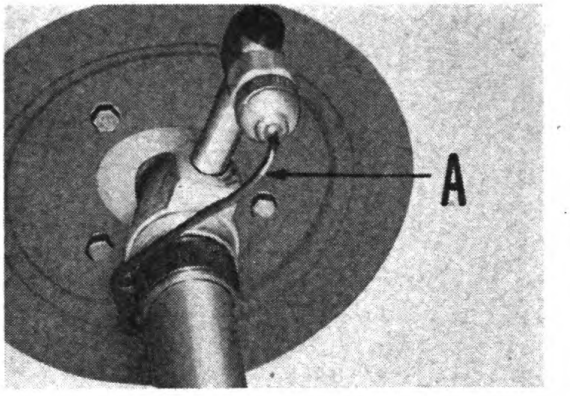


Figure 175
Lubricant Pressure Release Valve Assembled to Pump

Remove knurled cap ("A" Figure 176) from hexagon body ("B") then remove plunger assembly ("C").

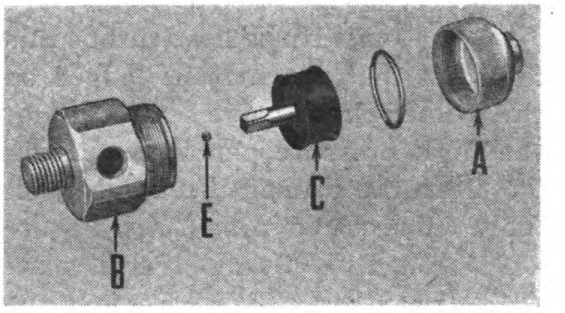


Figure 176
Pressure Release Valve Disassembled

The small check valve ball ("E" Figure 176), the seat ("B"), and the plunger ("C") can now be inspected and dirt removed. When reassembling, care should be taken that all sealing surfaces and gaskets are free from dirt and grit.

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Pump Overhaul Service (continued)

(4) For Model 7226 High Pressure Pumps.

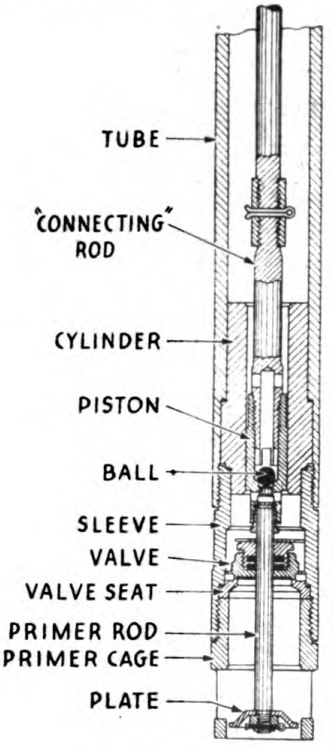


Figure 177
Cross Section of High Pressure Pump (lower portion)

(a) If the hose throbs this indicates that dirt may be lodged on the primer check valve seat or under the high pressure check valve ball. To clean the primer check valve, remove the cotter pin ("A" Figure 178), nut ("B"), and valve plate ("C") from rod ("E"). Remove the Dyn-a-matic Primer cage. Remove primer check valve sleeve ("F" Figure 178) and check valve seat ("G"). The seat and valve can now be inspected and dirt removed.

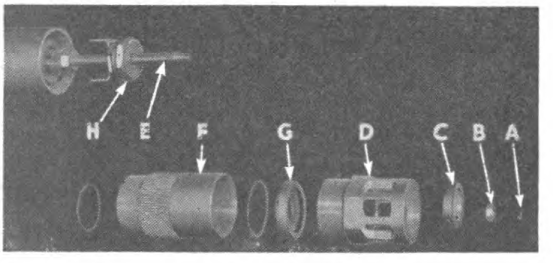


Figure 178
Primer Check Valve and Dyn-a-matic Valve Disassembled

(b) To clean the high pressure check valve, remove the primer check valve ("A" Figure 179) and the stop ("B") from rod ("C"). If necessary, replace wiper packings in the valve ("A"). Remove the high pressure tube ("D") and cylinder ("E"). Remove the high pressure piston ("F") and the ball check ("G") from the piston connecting rod ("H"). The ball check ("G") and the seat in the piston can now be inspected and dirt removed. If inspection reveals the above parts (ball or seat) to be scored or worn due to long usage, replace the parts.

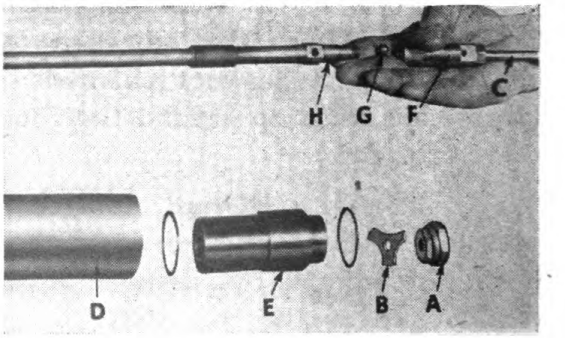


Figure 179
High Pressure Piston and Check Valve Disassembled

When reassembling, care should be taken to see that all sealing surfaces and gaskets are free from dirt and grit.

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Pump Overhaul Service (continued)

(5) For Models 7227 and 7228 Low Pressure Pumps.

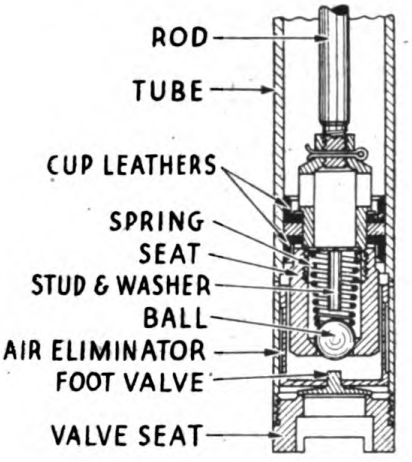


Figure 180
Cross Section of Low Pressure Pump (lower portion)

(a) If the foot valve or piston valve is not sealing properly because of dirt lodged on the sealing surfaces of these valves, the pump will operate without drawing in a new charge of lubricant or forcing lubricant through the pump outlet, causing the gun to run continuously. To correct this condition remove foot valve seat ("B" Figure 181), valve ("A"), and air eliminator ("C") from tube ("D").

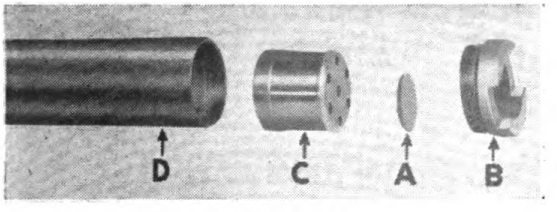


Figure 181
Foot Valve and Air Eliminator Removed

The valve and seat can now be inspected and dirt removed.

(b) To inspect piston valve and cup leathers, remove cylinder tube ("D" Figure 181). Remove large hexagon body or nut that retains cup leathers.

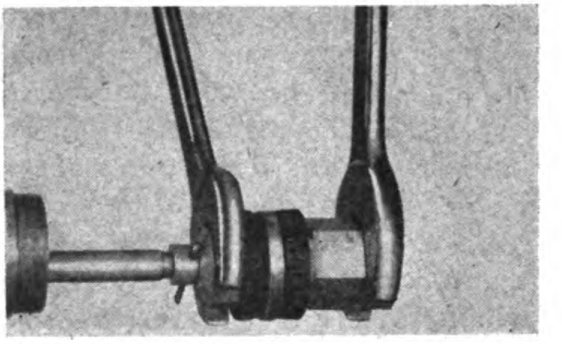


Figure 182
Removing Cup Leathers

Piston cup leathers ("A" Figure 183), check valve ball ("B"), and seat ("C") can now be disassembled for inspection.

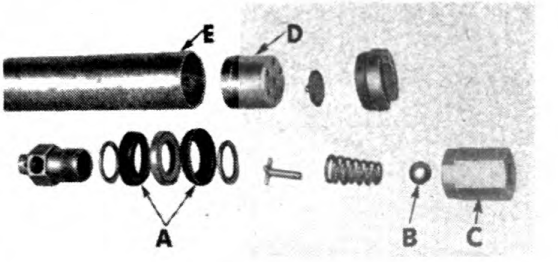


Figure 183
Low Pressure Piston and Check Valves Disassembled

When reassembling be sure the air eliminator ("D" Figure 183) operates freely in cylinder tube ("E").

d. ***WHAT TO DO IF GUN OPERATES SLOWLY AND CONTINUOUSLY WHEN THE CONTROL VALVE IS CLOSED.***

(1) For Model 7226 High Pressure Pumps.

(a) The high pressure lubricant piston or cylinder may be scored (very rare). (Refer to operations (a) and (b)—Section (4) page 80.) If piston or cylinder is

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Pump Overhaul Service (continued)

scored, both parts must be replaced as one unit.

(b) The air motor high pressure piston connecting rod and bushing could be worn or scored (very rare). To determine if lubricant is by-passing at this point, check the bleeder hole at side of base casting ("E" Figure 185). To replace this rod and bushing, remove the cylinder tube ("A" Figure 184) from the base casting ("B").

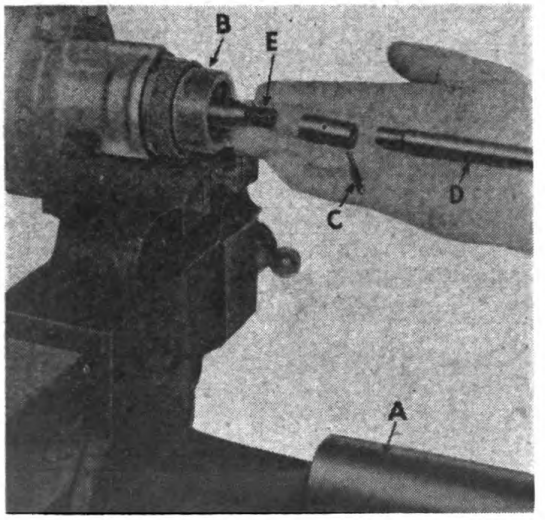


Figure 184
Cylinder Tube and Rod Removed

Remove the cotter pin ("C" Figure 184) and the lubricant piston connecting rod ("D") from air piston connecting rod ("E"). Remove the cap screws and the air motor assembly ("A" Figure 185) from the base casting ("B").

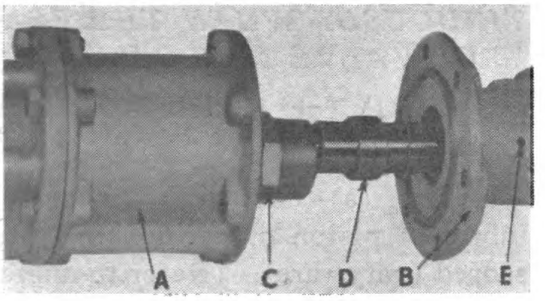


Figure 185
Removing Air Motor

Remove large bushing retainer nut ("C" Figure 185). Rod and bushing ("D") can now be inspected and replaced if necessary. Reassemble.

(2) **For Models 7227 and 7228 Low Pressure Pumps.**

(a) If the low pressure piston rod packings leak air or lubricant through bleeder hole at side of base casting, they can be easily replaced. Remove cylinder tube ("A" Figure 184) from base casting ("B"). Remove cotter pin ("C") and disconnect lubricant piston rod ("D") from air piston rod ("E").

(b) Remove cap screws and air motor assembly ("A" Figure 186) from base casting ("B"). Remove packing nut ("C").

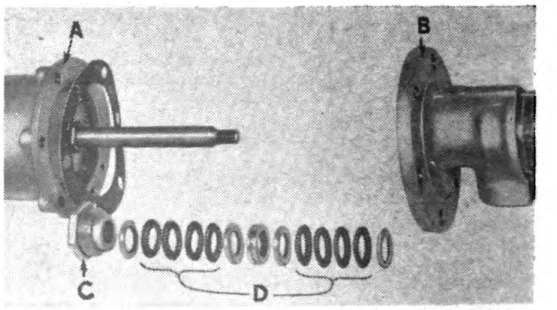


Figure 186
Base Casting Removed from Air Motor

Packings ("D" Figure 186) can now be removed and replaced, if necessary. Reassemble.

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D.
NO. G-302100 CONTROL VALVE

1. Adjustments

(Refer to Section I-4 of Operator's Manual, pages 22 and 23.)

2. Overhaul Service

a. *WHAT TO DO IF LUBRICANT LEAKS OUT OF NOZZLE WHEN NOT IN USE.*

If lubricant leaks out of nozzle continuously when there is grease pressure in the hose and control valve lever is in the closed position, it is due to a dirty or worn check valve assembly, or the set screw is improperly adjusted (See Figure 59). The valve can be easily cleaned or replaced as follows:

(1) Disconnect air hose from pump inlet (See Figure 97).

(2) Disconnect control valve from hose.

(3) Remove retaining bushing.

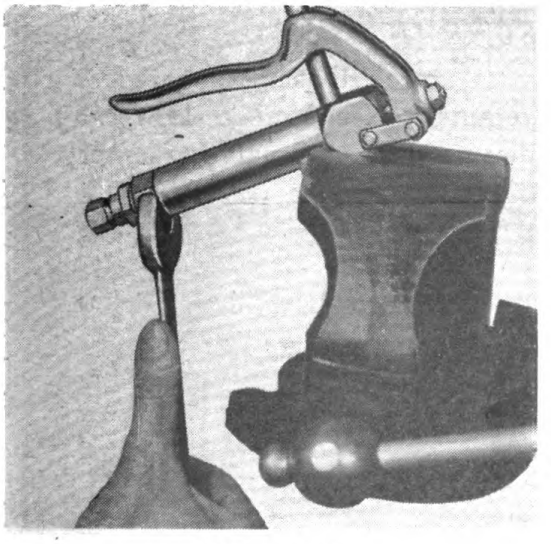


Figure 187
Removing Retaining Bushing

(4) Remove gasket and check assembly by depressing lever.

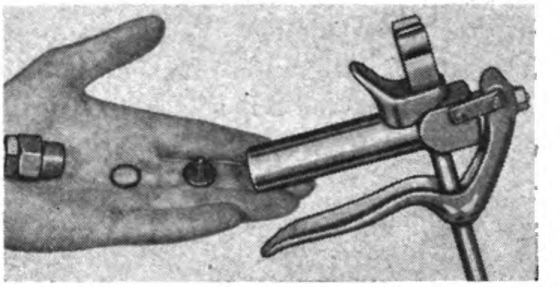


Figure 188
Bushing, Gasket, and Check Assembly Removed

(5) Clean check by compressing. If seat is scored, replace check assembly.

b. *WHAT TO DO IF LUBRICANT LEAKS OUT AT TOP OF CONTROL VALVE.*

If lubricant leaks at the point where the lever presses down on the plunger stem, it is due to the leather packing at this point being worn or not sealing, or valve body being worn.

(1) To replace the top leather packing disconnect the toggles and lever at "A" Figure 189 and the spring tension will push out the packing leather ("C" Figure 190).

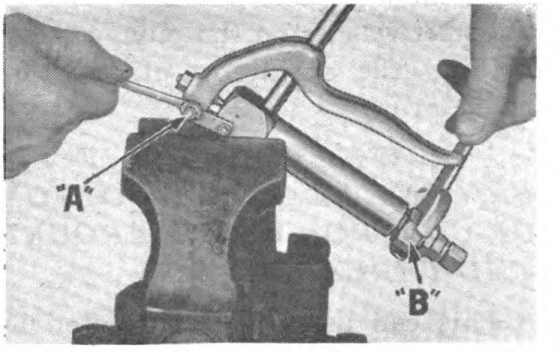


Figure 189
Removing Lever

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No. G-302100 Control Valve (continued)

Relieve the spring tension by unscrewing retaining bushing ("B" Figure 189) about ½". Soften new leather in oil and reassemble. If spring tension is not released, it will be difficult to reassemble leather.

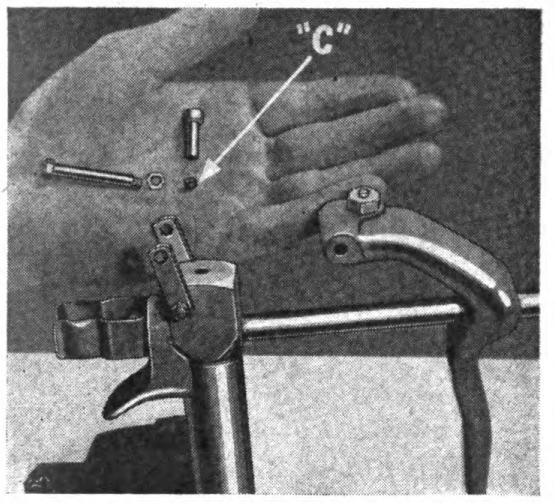


Figure 190
Leather Packing Removed

Reattach lever, make top adjustment (See Figure 59), and test control valve.

(2) If the top hole is worn because of faulty adjustment, the control valve body must be replaced in order to prevent leakage at this point. In order to do this, the entire valve must be disassembled (See Page 134). Care should be used when reassembling the control valve so that the steel washer on the plunger stem holding the spring in place is located properly.

c. *WHAT TO DO IF LUBRICANT LEAKS AT BOTTOM OF CONTROL VALVE AROUND THE THREADS.*

This can usually be corrected by tightening the lock nut located just below the retaining bushing (See Figure 187). If this does not stop leakage, replace copper packing ring.

E.

MODEL 6611 MOTOR OIL METER

1. Description:

This hand meter is used to measure and control the flow of motor oil as it is dispensed directly into a crankcase. The outer pointer makes one complete revolution for each quart of oil dispensed, and the inner pointer indicates the total number of quarts dispensed (up to 10). The odometer records the total gallons.

2. Service Instructions:

A meter should never be disassembled or tampered with unless it is in need of service. If meter must be repaired, the air hose should be disconnected from the lubricant pump inlet (See Figure 97), and the meter detached from the hose.

a. *WHAT TO DO IF OIL LEAKS OUT OF NOZZLE CONTINUOUSLY WHEN METER IS NOT IN USE (WITH OIL PRESSURE IN HOSE).*

(1) Unscrew valve spring retainer (See Figure 191), and remove spring and valve assembly.

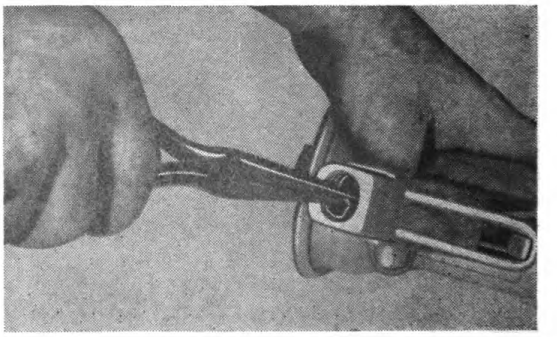


Figure 191
Removing Valve Spring Retainer

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Model 6611 Meter (continued)

(2) Carefully clean valve seat with a rag.

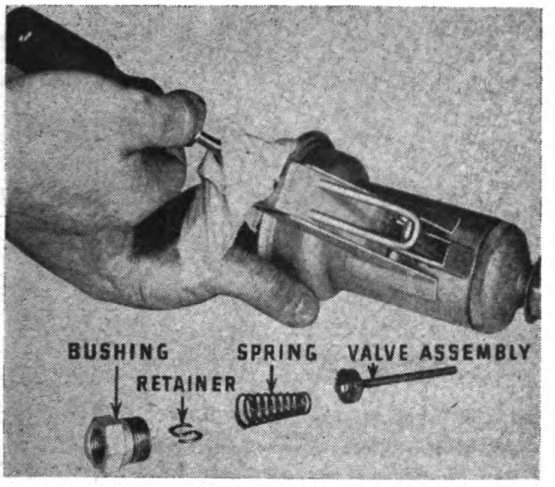


Figure 192
Cleaning Valve Seat

(3) Inspect valve disc ("A" Figure 193) and replace if worn. When assembling valve, hold nut ("B") while tightening lock nut ("C") to prevent too much pressure on valve disc ("A").

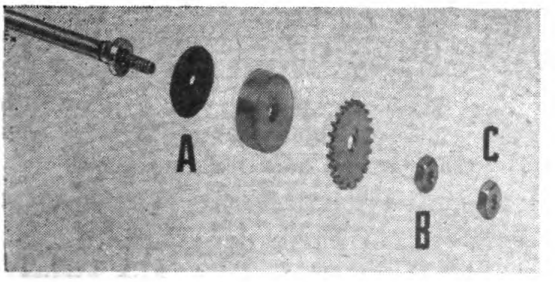


Figure 193
Valve Disassembled

b. *WHAT TO DO IF LUBRICANT LEAKS AT UPPER END OF VALVE STEM ("A" FIGURE 194).*

(1) Remove lever by unscrewing pin ("B" Figure 194).

(2) Tighten packing box by placing punch in hole and turning clockwise.

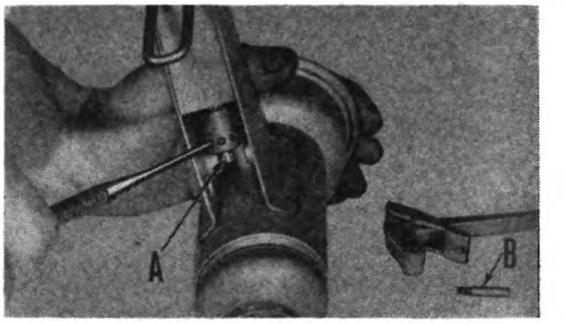


Figure 194
Tightening Valve Stem Packing Box

(3) If tightening does not stop leak, remove packing box and replace packing.

c. *WHAT TO DO IF LUBRICANT LEAKS AROUND FACE DIAL OR POINTER.*

(1) Remove pointer set screw (See Figure 195) and pull or pry off pointer. Use extreme care to prevent loss of tiny rollers and springs.

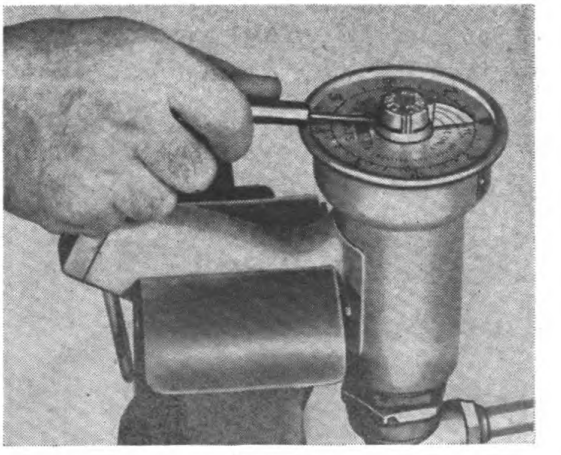


Figure 195
Removing Pointer Set Screw

(2) Remove cam lock nut ("A" Figure 196), unscrew cam ("B"), and lift off knob retainer sleeve ("C"), and spacer ("D").

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Model 6611 Meter (continued)

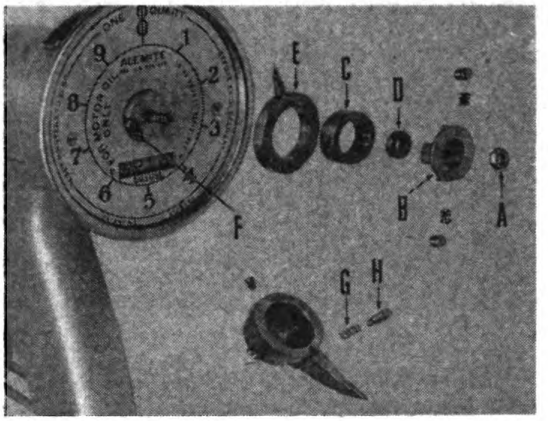


Figure 196
Pointers, etc., Disassembled

(3) Remove inner circle pointer ("E" Figure 196), being careful not to lose tiny roller and spring.

(4) Remove face dial (two screws).

(5) Remove inner circle pointer cam ("A" Figure 197) and compound pinion assembly ("B").

(6) Remove odometer and pinion assembly by taking out four screws ("C" Figure 197).

(7) Remove worm ("D" Figure 197) by taking out screw ("E").

(8) Remove spindle packing gland.

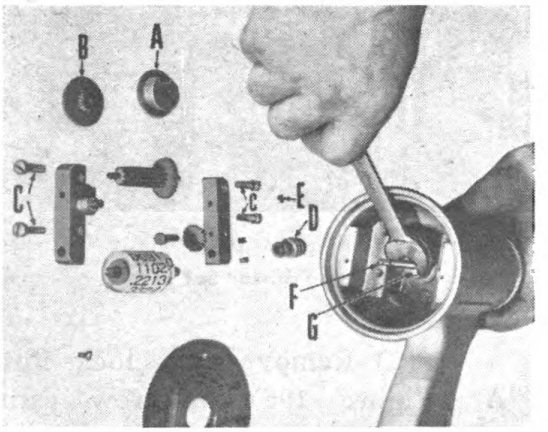


Figure 197
Removing Spindle Packing Gland

(9) Remove cap and adapter assembly.

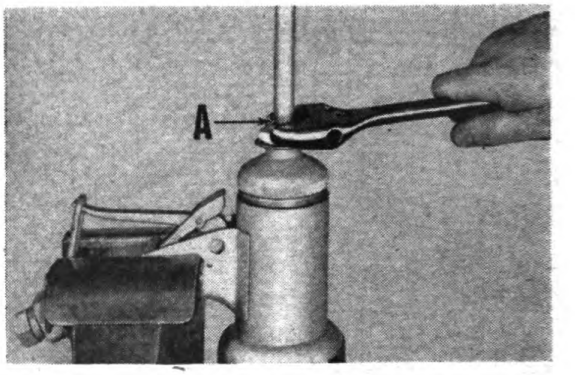


Figure 198
Removing Cap and Adapter Assembly

(10) Pry out gasket ("A" Figure 199), remove entire wobbler assembly ("B"), and gear train ("C").

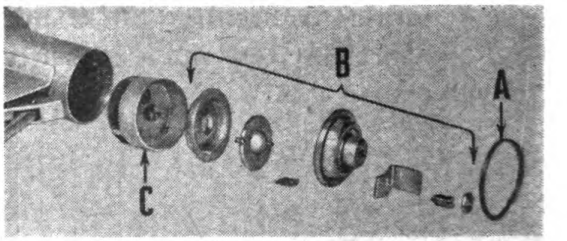


Figure 199
Wobbler and Gear Train Removed

(11) Push drive spindle assembly through packing box by applying pressure at "F" Figure 197.

(12) Remove old spindle packing from box with small screwdriver, insert new packing, and engage packing gland one or two threads.

(13) Replace drive spindle assembly ("F" Figure 197) and tighten packing gland.

(14) Replace gear train assembly ("C" Figure 199), making

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Model 6611 Meter (continued)

sure that gears mesh with spindle gear. Then replace wobbler ("B" Figure 199), gasket ("A"), and cap and adapter (See Figure 198).

(15) Test spindle packing for leakage as follows:

(a) Unscrew nozzle pipe at "A" Figure 198 and insert ¼" pipe plug at this point.

(b) Attach air pressure line to meter inlet. A convenient method of making this connection is to install an Alemite CP-15 adapter in the inlet by using ¼" x ⅜" bushing. The air service hose on reel can then be quickly connected.

(c) Place several drops of oil around spindle at "G" Figure 197. Depress lever to determine if air leaks around spindle packing. If bubbles appear in oil, retighten packing gland.

(d) Detach air line from meter inlet and remove pipe plug from outlet. Reattach nozzle pipe.

(16) Replace worm ("D"), set screw ("E"), odometer and pinion assembly, compound pinion assembly ("B"), inner circle pointer cam ("A"), and face dial in order mentioned (See Figure 197). Set screw ("E") must line up with indentation in drive spindle.

(17) Place tiny roller and spring ("F" Figure 196) in slot in cam in same position shown in Figure 196, and replace inner circle pointer ("E"), spacer ("D"), knob retainer sleeve ("C"), cam ("B"), and cam lock nut ("A"). (See Figure 196).

(18) Place rollers and spring ("A" Figure 200) in slots in cam in same position illustrated in Figure 200. Place spring ("G" Figure 196) and plunger ("H" Figure 196) in hole in pointer. While holding plunger with forefinger (See Figure 200), start pointer by placing inner edge over rollers and turning pointer counter-clockwise depressing the springs, thus allowing the rollers to recede into the tapered slots of cam.

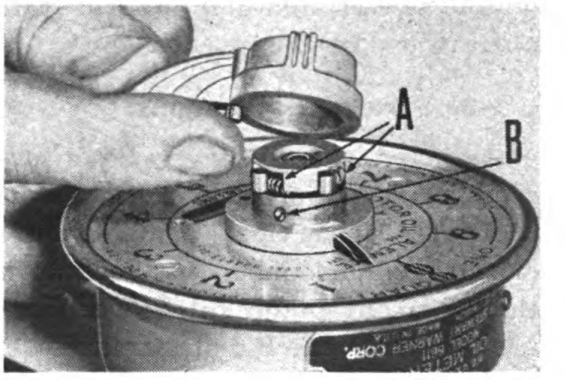


Figure 200
Replacing Pointer

(19) Before pressing pointer all the way down, make sure that pointer set screw hole is in line with hole ("B" Figure 200) in sleeve.

Then press pointer all the way down and insert set screw (See Figure 195).

d. *WHAT TO DO IF POINTERS OR ODOMETER DO NOT REGISTER WHEN OIL IS BEING DISPENSED.*

Disassemble as instructed in previous Section "c," replace defective parts, and reassemble.

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F.
MODEL 6613 GEAR LUBRICANT METER WITH TOTALIZER

1. Description:

The 6613 Meter is used to measure and control the flow of gear lubricant as it is dispensed directly into the gear case (See Figure 18). The reset pointer indicates the number of pints of lubricant (up to 8) dispensed into the gear case being filled. The odometer records the total pints of lubricant dispensed.

This meter is equipped with a double-swivel non-drip nozzle permitting use in any gear case.

2. Service Instructions:

A meter should never be disassembled or tampered with unless it is in need of service. If meter must be repaired, disconnect air hose from the lubricant pump inlet (See Figure 97), and detach meter from hose.

a. *WHAT TO DO IF LUBRICANT LEAKS OUT OF NOZZLE CONTINUOUSLY WHEN METER IS NOT IN USE (WITH LUBRICANT PRESSURE IN HOSE).*

To stop leak, follow instructions in previous Section E-2-a, as the valve assembly is identical to that used in the 6611 Oil Meter (see pages 84 and 85).

b. *WHAT TO DO IF LUBRICANT LEAKS AT UPPER END OF VALVE STEM ("A" FIGURE 194).*

Follow instructions in previous Section E-2-b, as this part of meter is identical to 6611 Oil Meter (see page 85).

c. *WHAT TO DO IF LUBRICANT LEAKS AROUND FACE DIAL OR POINTER.*

(1) Remove pointer set screw (See Figure 195) and pull or pry off pointer. Use extreme care to prevent loss of tiny rollers and springs.

(2) Remove cam lock nut ("A" Figure 201), unscrew cam ("B"), and lift off knob retainer sleeve ("C"), and spacer ("D").

(3) Remove face dial (two screws).

(4) Remove odometer and pinion assembly by taking out four screws ("E" Figure 201).

(5) Remove worm ("F" Figure 201) by taking out set screw ("G" Figure 201).

(6) Remove spindle packing gland ("H" Figure 201).

(7) Remove housing cap and nozzle (assembled), pry out gasket ("A" Figure 199), remove entire wobbler assembly ("B" Figure 199), and gear train ("C" Figure 199).

(8) Push drive spindle assembly through packing box by applying pressure at "J" Figure 201.

(9) Remove old spindle packing from box with small screwdriver, insert new packing, and engage packing gland one or two threads.

(10) Replace drive spindle assembly ("J" Figure 201), and tighten packing gland.

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Model 6613 Meter (continued)

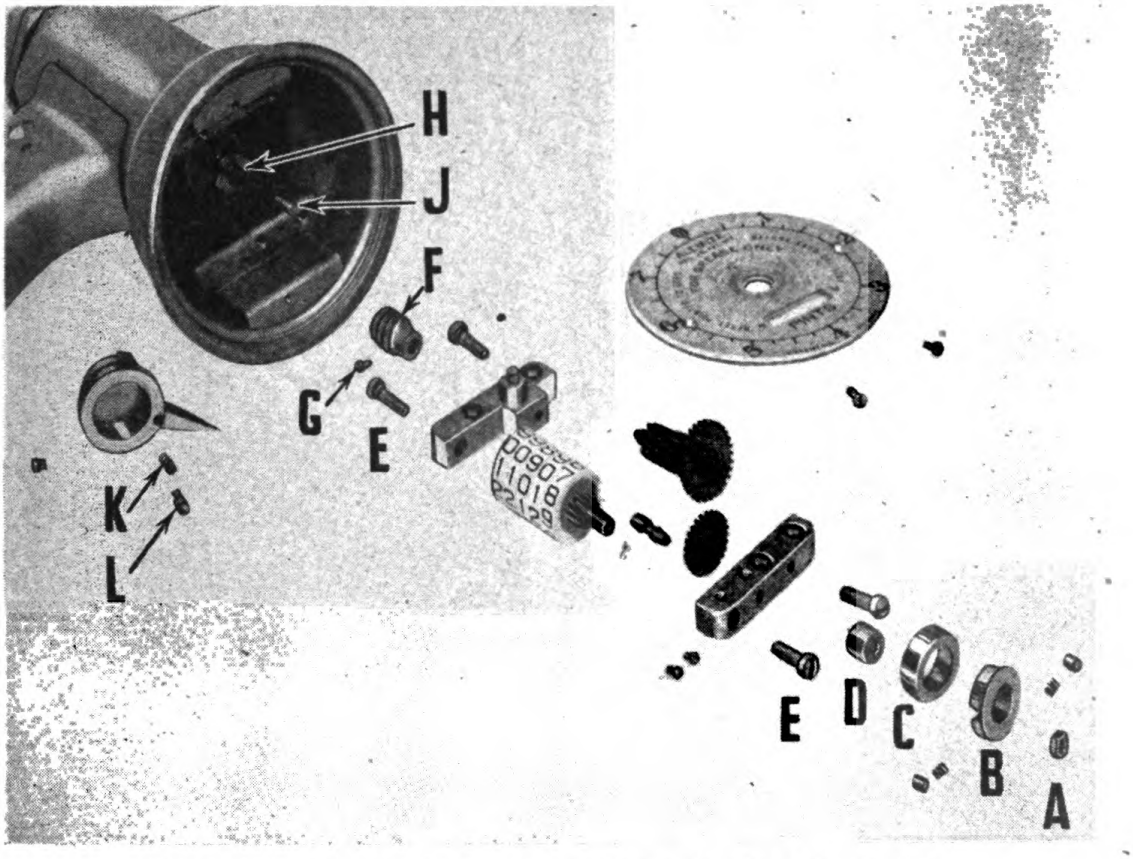


Figure 201—Pointer, Face Dial, Odometer, and Pinion Disassembled

(11) Replace gear train assembly ("C" Figure 199), making sure that gears mesh with spindle gear. Then replace wobbler ("B" Figure 199), gasket ("C" Figure 199), cap and nozzle.

(12) Test spindle packing for leakage as follows:

(a) Unscrew nozzle tip angle body at "A" Figure 204, and screw ¼" pipe cap on extension in its place.

(b) Attach air pressure line to meter inlet. A convenient method of making this connection is to install an Alemite CP-15 adapter in the inlet by using ¼" x ⅜" bushing. The air service hose on reel can then be quickly connected.

(c) Place several drops of oil around spindle at "H" Figure 201. Depress lever to determine if air leaks around spindle packing. If bubbles appear in oil, retighten packing gland.

(d) Detach air line from meter inlet, remove pipe cap from extension, and reattach nozzle tip and elbow.

(13) Replace worm ("F"), set screw ("G"), odometer and pinion assembly, face dial, spacer ("D"), knob retainer sleeve ("C"), cam ("B"), and cam lock nut ("A"). (See Figure 201.) Set screw ("G") must line up with indentation in drive spindle.

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Model 6613 Meter (continued)

(14) Place tiny rollers and springs ("A" Figure 202) in slots in cam in same position shown in Figure 202. Place spring ("K" Figure 201), and plunger ("L" Figure 201) in hole in pointer.

While holding plunger with forefinger (See Figure 202), start pointer by placing inner edge over rollers and turning pointer counter-clockwise depressing the springs, thus allowing the rollers to recede into the tapered slots in cam.

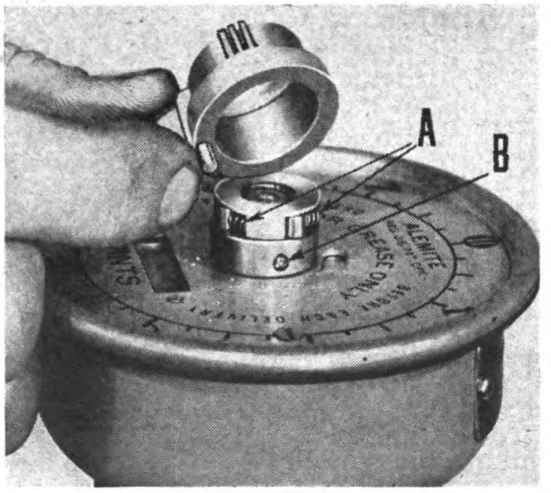


Figure 202
Replacing Pointer

(15) Before pressing all the way down, make sure that pointer set screw hole is in line with hole ("B" Figure 202) in sleeve. Then press pointer all the way down and insert set screw (See Figure 200).

d. *WHAT TO DO IF POINTERS OR ODOMETER DO NOT REGISTER WHEN LUBRICANT IS BEING DISPENSED.*

Disassemble as instructed in previous Section **c**, replace defective parts, and reassemble.

e. *WHAT TO DO IF LUBRICANT LEAKS AT SWIVEL JOINTS.*

(1) Loosen swivel retainer nut set screw (See Figure 203).

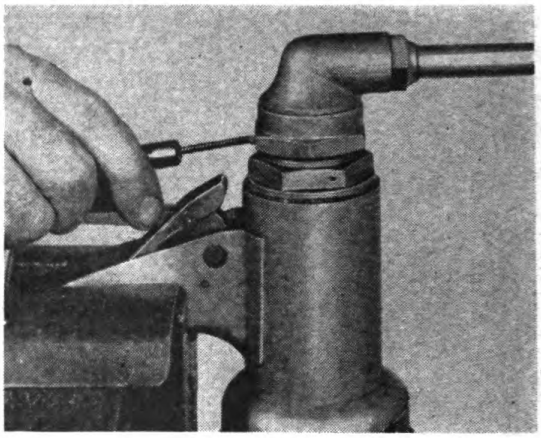


Figure 203
Loosening Set Screw

(2) Unscrew swivel retainer nut by holding nut in vise and turning meter (See Figure 204).

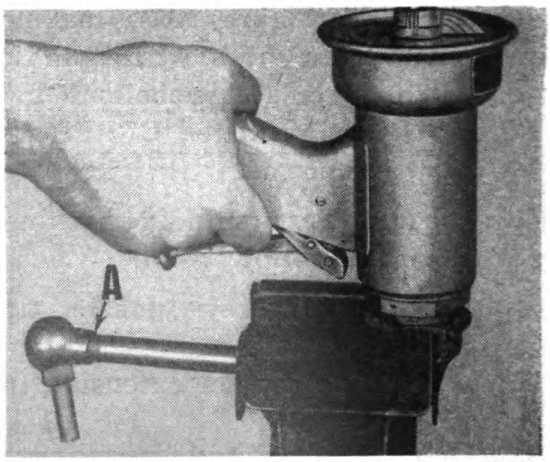


Figure 204
Removing Swivel Retainer Nut

(3) Examine swivel packing ("A" Figure 205), and replace if necessary.

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Model 6613 Meter (continued)

(4) If lubricant leaks at "B" Figure 205, remove swivel lock screw (See Figure 205), and unscrew swivel bushing. A handy method of removing swivel bushing is illustrated in Figure 206.

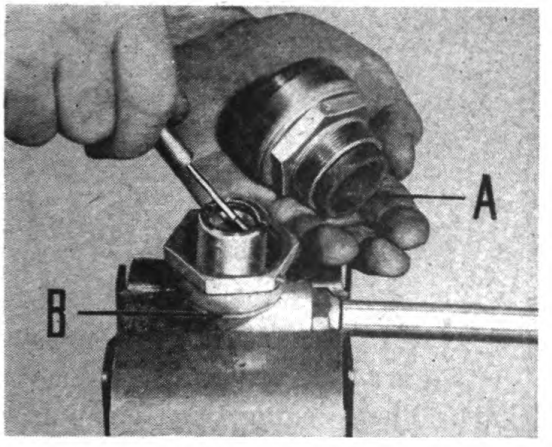


Figure 205
Removing Swivel Lock Screw

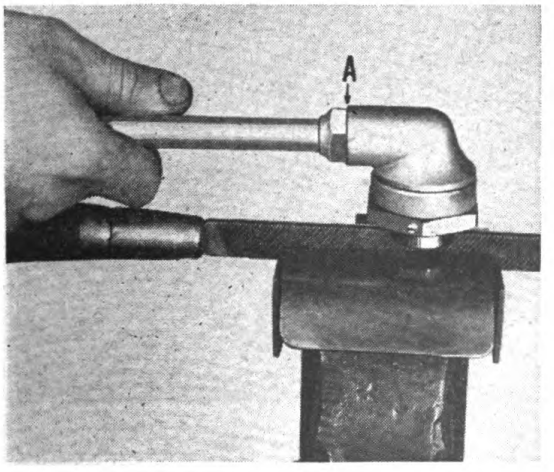


Figure 206
Removing Swivel Bushing

(5) Replace swivel bushing gasket and reassemble, making sure to line up hole in bushing with threaded hole for lock screw (See Figure 205).

(6) If lubricant leaks at "A" Figure 206, detach extension at this point, replace split packing, and reassemble.

G.
MODEL 6325-A GEAR LUBRICANT METER

NOTE: This meter is used instead of the Model 6613 Meter (See Page 88) on units bearing Serial No. 739762 and higher.

1. Description:

The 6325-A Gear Lubricant Meter is similar to the Model 6613 Meter, except that it does not have an odometer for recording the total amount of lubricant dispensed. The face dial is smaller in diameter, and registers up to 5 pints.

2. Service Instructions:

Refer to previous Section F-2, as this meter is very similar to the Model 6613 Meter, except that the odometer and pinion assembly are omitted, and the spindle packing can be serviced without removing the face dial.

H.
MODEL 6060 ONE-POUND LUBRICANT GUN

1. Description:

(Refer to Page 24 of Operator's Manual.)

2. Service Instructions:

a. WHAT TO DO IF AIR MOTOR WILL NOT OPERATE.

(1) Check union holding extension to gun outlet (See Figure 68). This union must be tightly engaged to open valve at gun outlet before air motor will operate.

(2) Check air line and air coupling (See Figure 54) to see that air flow is not restricted.

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Model 6060 Gun (continued)

b. *WHAT TO DO IF AIR MOTOR WILL OPERATE BUT GUN WILL NOT DELIVER LUBRICANT.*

(1) Check to see that there is lubricant in cylinder.

(2) Be sure release valve is in closed position (See Figure 64), and that gun is primed (See Figure 63).

(3) Clean check valve at gun outlet by first unscrewing shut-off valve assembly ("A" Figure 207). The check valve spring and ball can then be removed from the adapter ("B" Figure 207), and the check valve seat cleaned with a rag.

The best insurance against check valve trouble is to use CLEAN LUBRICANT.

c. *WHAT TO DO IF LUBRICANT LEAKS OUT OF RELIEF PORT OR BETWEEN HANDLE CASTING AND HEAD CASTING.*

This leak is caused by a worn piston packing, or the piston hole in the head casting has become worn or scored, allowing the lubricant to by-pass the piston and packing. When this occurs the gun may fail to develop sufficient pressure to open tight bearings.

(1) Open release valve (See Figure 64), and detach lubricant cylinder (See Figure 66).

(2) Separate head casting from handle casting by removing four screws (See Figure 207). Hold head casting when removing last screw to prevent large spring from throwing it on floor.

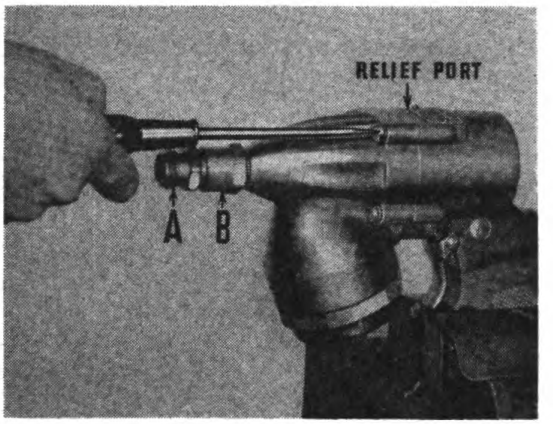


Figure 207
Removing Head Casting Screw

(3) Remove retaining screw ("A" Figure 208) with a large screwdriver. Then remove leather packing ("B"), washer ("C"), and spring ("D"). (See Figure 208.)

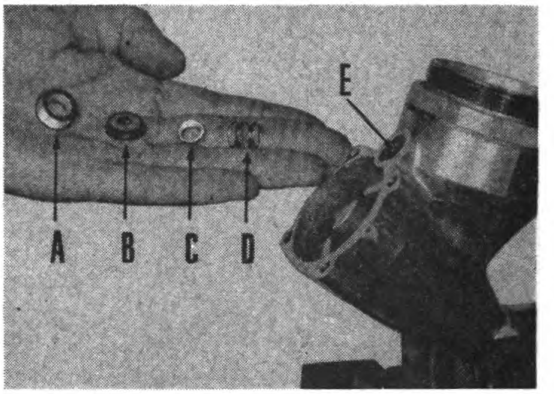


Figure 208
Piston Packing, Retainer, Washer, and Spring Removed

(4) Remove piston and cup leather assembly from the handle casting, and check piston for a snug fit in hole in head casting. If piston hole is not worn, replace the packing ("A" Figure 208), and reassemble. If the piston hole is worn or scored, both the head casting and piston must be replaced as a unit.

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Model 6060 Gun (continued)

(5) When reassembling head casting to handle casting, be sure that plug disc ("E" Figure 208) is in place.

d. ***WHAT TO DO IF AIR LEAKS OUT THE RELIEF PORT (SEE FIGURE 207).***

(1) Disassemble gun as described in preceding Section **c**, and examine large cup leather to see if it has become dry and hard (caused by failure to oil regularly—See Figure 62).

(2) If leather cannot be put into good condition by working oil into it, replace with a new one (See Figure 209).

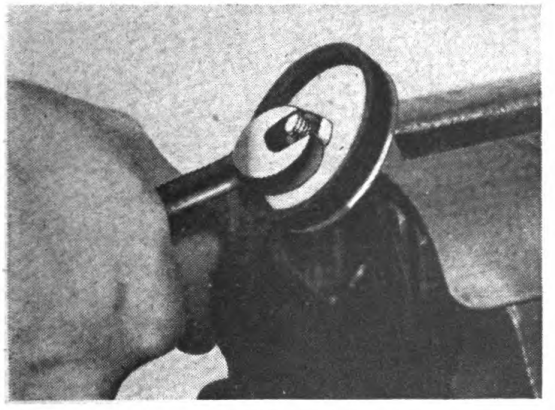


Figure 209
Removing Cup Leather Retaining Nut

e. ***WHAT TO DO IF PISTON RETURN IS SLUGGISH.***

(1) Unscrew plug ("A" Figure 210) and remove spring and other air valve parts.

Remove dirt from washer ("B" Figure 210). If washer is worn, replace and reassemble.

(2) Sluggish piston return may also be caused by a weakened piston return spring. This large spring is easily replaced by removing the four casting screws (See Figure 207).

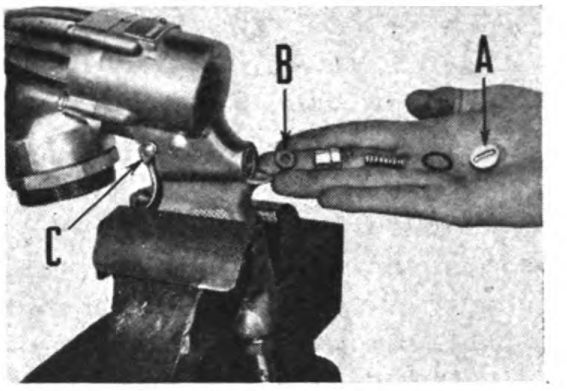


Figure 210
Air Valve Parts Removed

f. ***WHAT TO DO IF AUDIBLE AIR LEAK OCCURS AT THE TRIGGER (WHEN DEPRESSED).***

(1) Remove trigger by taking out screw ("C" Figure 210).

(2) Remove trigger valve assembly (See Figure 211) to see that it is free from dirt and in good condition.

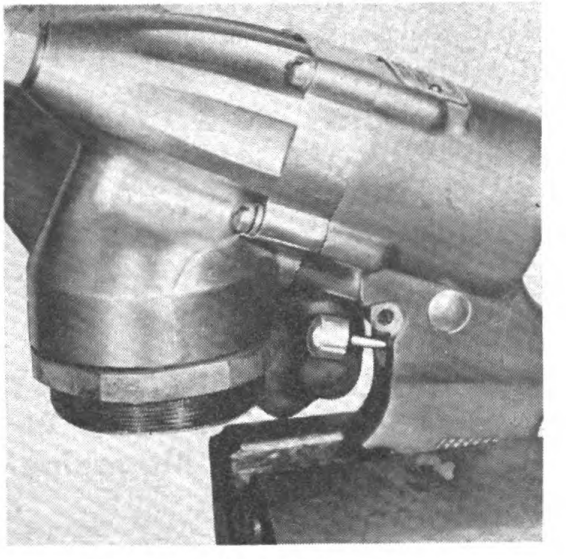


Figure 211
Removing Trigger Valve Assembly

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Model 6060 Gun (continued)

g. *WHAT TO DO IF LUBRICANT LEAKS PAST FOLLOWER INSIDE CYLINDER.*

(1) Release air pressure from cylinder (See Figure 64), unscrew follower rod (See Figure 65), and unscrew back cap from the cylinder. Do not use wrench or vise to hold cylinder when removing back cap, as cylinder will be crushed. If back cap is too tight to remove by hand, hold cap in vise and use a strap wrench around cylinder.

(2) Pull follower out of cylinder and disassemble as shown in Figure 212. Examine cup leathers ("A"), sealing washer ("B"), and packing inside nut ("C"). Replace worn parts and reassemble.

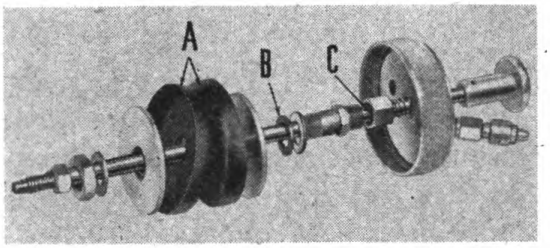


Figure 212
Follower and Back Cap Disassembled

h. *WHAT TO DO IF OUTLET SHUT-OFF VALVE LEAKS OR WILL NOT OPEN WHEN ADAPTERS ARE ATTACHED.*

Refer to following Section I-2-h.

I.

ONE-POUND LUBRICANT GUN *(Consisting of 6620 Air Motor and 6625-C Magazine)*

1. Description:

(Refer to Page 27 of Operator's Manual.)

2. Service Instructions:

a. *WHAT TO DO IF AIR MOTOR WILL NOT OPERATE, OR IS SLUGGISH.*

(1) Check union holding extension to gun outlet (See Figure 75). This union must be tightly engaged to open valve at gun outlet before air motor will operate.

(2) Check air line and air coupling (See Figure 54) to see that air flow is not restricted.

(3) Remove air line connection (See Figure 213), clean strainer, and reassemble.

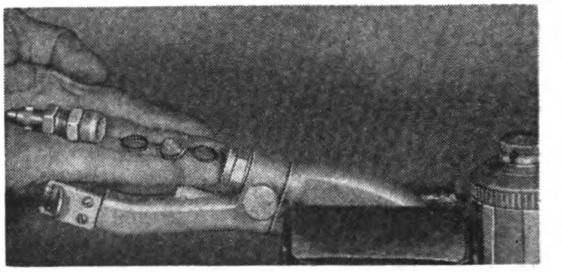


Figure 213
Air Strainer Removed

(4) Check exhaust adjustment (See Figure 77) to see that exhaust is not restricted.

(5) Check return spring in cylinder head (See Figure 229) to see if it is weak or broken, preventing air motor from making the back stroke.

(6) Service Trigger Valve (Air Inlet Valve).

(a) Remove trigger and unscrew trigger valve (air inlet valve) (See Figure 214), using a wide screwdriver and lining up the screw slots so that the valve stem will not be damaged.

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One-Pound Gun (Continued)

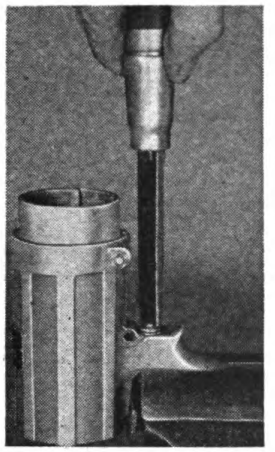


Figure 214
Unscrewing Air Inlet Valve

(b) Remove the valve assembly and spring.

(c) Inspect the valve seat and, if worn or damaged, replace the rubber seat in the brass case. The valve is designed so that when the trigger is depressed there is approximately ⅛" clearance as shown in Figure 215. If valve is not properly adjusted, the air passage to the air motor will be restricted.

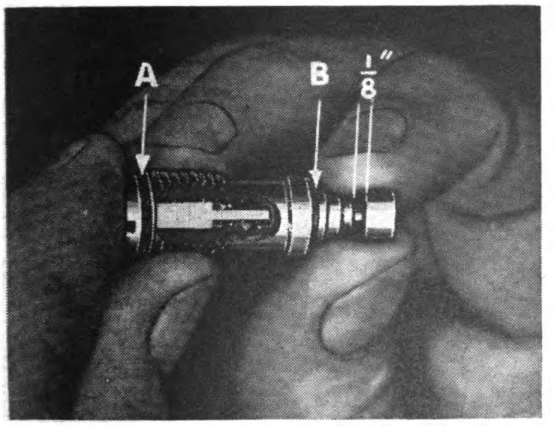


Figure 215
Adjusting Valve Clearance

(d) Use new gaskets ("A" and "B" Figure 215) and replace valve in handle casting, tighten carefully, and replace trigger.

(7) Service Air Valve Assembly.

(a) Remove cap assembly.

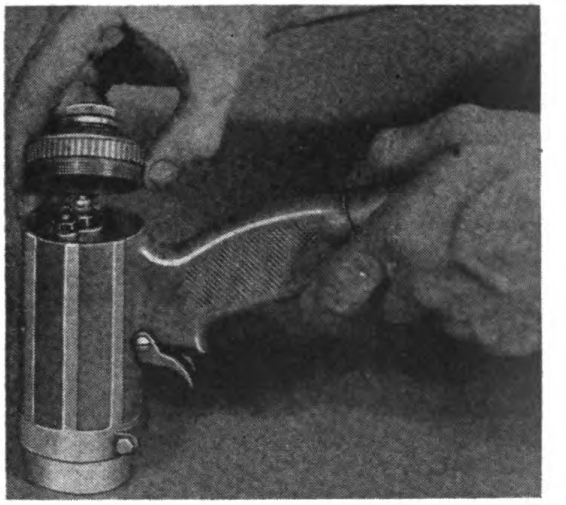


Figure 216
Removing Air Valve Cap

(b) Remove wire that locks trip rod nut (See Figure 217) by pushing on bent end of wire with a screwdriver or punch and pulling out with pliers.

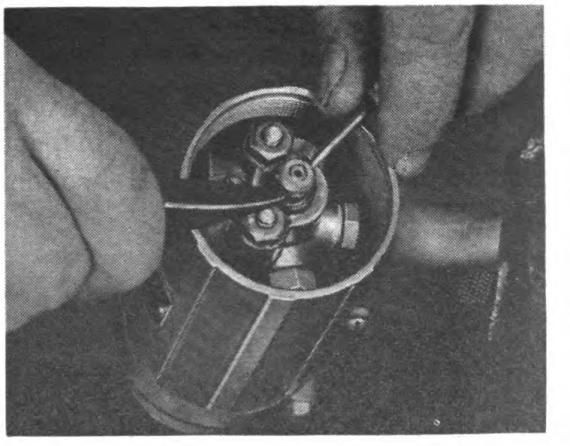


Figure 217
Removing Lock Ring

(c) Remove trip rod nut and inspect top valve spring (See Figure 218). If spring is broken, replace and reassemble air valve. If satisfactory, continue as follows:

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One-Pound Gun (Continued)

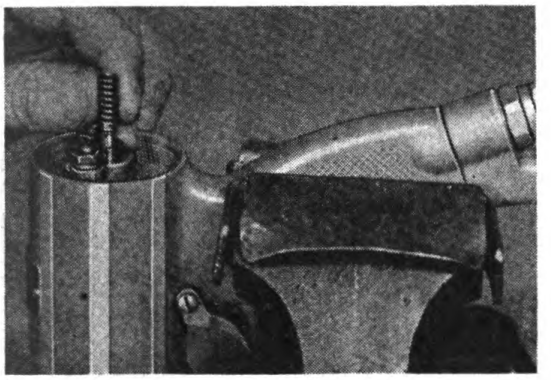


Figure 218
Top Valve Spring

(d) Remove two nuts holding air valve in place and lift out air valve assembly.

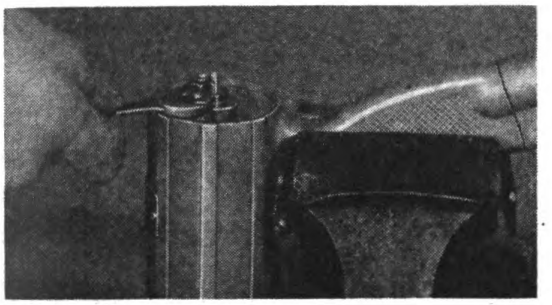


Figure 219
Removing Air Valve Nut

(e) Remove and inspect bottom air valve spring. If broken, replace.

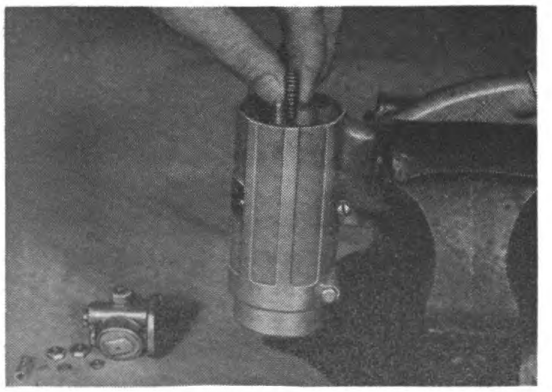


Figure 220
Removing Bottom Air Valve Spring

(f) Remove two equalizer assemblies (See Figure 221). Do not hold air valve assembly in vise.

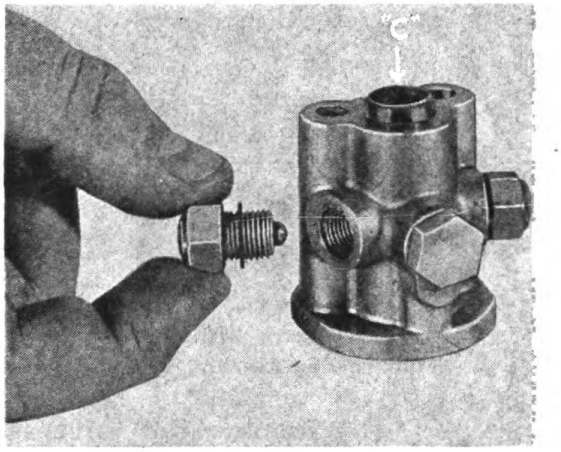


Figure 221
Equalizer Assembly Removed

Press in on roller to determine if spring is satisfactory. After equalizers have been carefully checked and reassembled, push air valve stem ("C" Figure 221) up and down to see that it can be moved freely.

(g) Reassemble air valve to gun. If air valve assembly is defective it should be replaced as a unit.

b. ***WHAT TO DO IF AIR MOTOR OPERATES CONTINUOUSLY WHEN TRIGGER IS NOT DEPRESSED.***

This is caused by the inlet valve not sealing. Refer to preceding Section (5) for complete instructions.

c. ***WHAT TO DO IF AIR LEAKS OUT AROUND THE TRIGGER VALVE.***

Remove valve and replace the gaskets "A" and "B" Figure 215.

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One-Pound Gun (Continued)

d. *WHAT TO DO IF EXCESSIVE AIR LEAK OCCURS AT EXHAUST, SO THAT GUN DOES NOT DEVELOP SUFFICIENT PRESSURE.*

(1) Remove air valve as instructed in previous Section a (7).

(2) Remove and inspect main air valve gasket (See Figure 222). If defective, replace with new gasket making certain that it is reassembled so all holes in the gasket line up properly with holes in the main casting. Reassemble air valve.

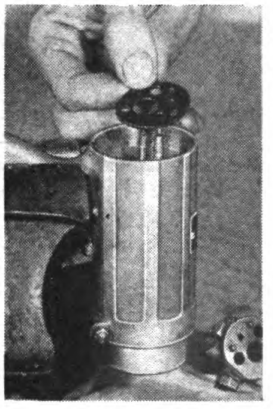


Figure 222
Air Valve Gasket

(3) Remove lock nut (See Figure 223) and clamp screw.

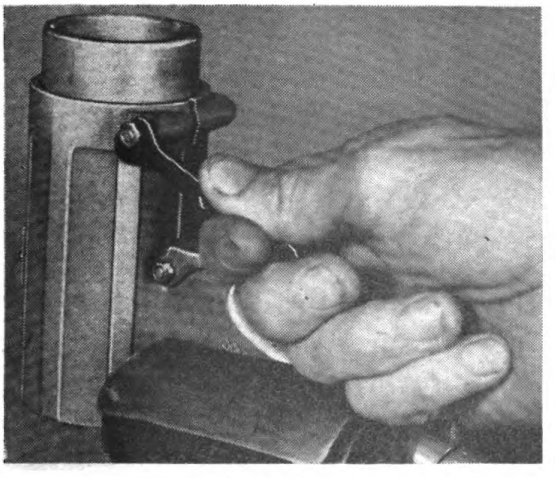


Figure 223
Removing Lock Nut

(4) Unscrew locking sleeve assembly (See Figure 224). If unable to unscrew by hand, attach cylinder (See Figure 73) and use as a lever.



Figure 224
Removing Locking Sleeve

(5) Lift out air motor piston assembly. Replace cup leather if worn.



Figure 225
Removing Air Motor Piston

(6) Remove packing screw (with a wide screwdriver), and remove and inspect the sealing washer between the air motor and air valve.

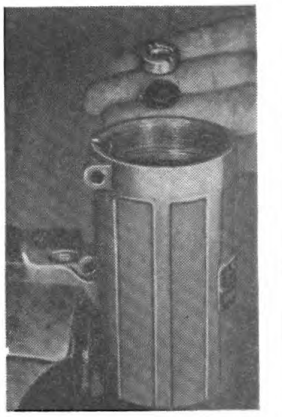


Figure 226
Packing Screw and Sealing Washer Removed

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One-Pound Gun (Continued)

(7) Replace packing and reassemble entire air motor. Screw the locking sleeve (See Figure 224) down until the groove in sleeve is lined up with the hole for the clamp screw. Insert lock screw. Attach and detach cylinder (See Figure 73) to see that locking sleeve is in proper position, then tighten lock nut on clamp screw (See Figure 223).

(8) If excessive air leak still occurs at exhaust, replace the air valve assembly as a unit. Refer to preceding Section a (7).

e. ***WHAT TO DO IF GUN OPERATES CONTINUOUSLY WHEN TRIGGER IS DEPRESSED WITHOUT BUILDING PRESSURE OR DELIVERING LUBRICANT.***

(1) Check to see that lubricant cylinder is not empty, and that screen in cylinder head is not clogged.

(2) Open pressure release valve (See Figure 78) and operate gun until clear lubricant appears at this point. Then close release valve.

(3) Clean the check valve at gun outlet by removing the shut-off assembly, spring and ball (See Figure 227). Clean ball and its seat and replace.

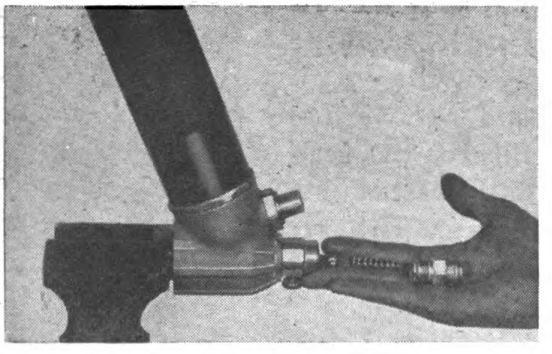


Figure 227
Shut-off Valve, Spring, and Check Valve Ball Removed

f. ***WHAT TO DO IF GUN DOES NOT USE ANY OIL.***

(1) Remove oiler (See Figure 228) and clean oiler hole. There is a very fine hole in center of oiler casting.

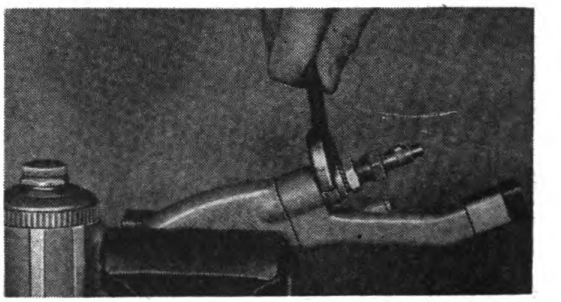


Figure 228
Removing Oiler

(2) Inspect oiler wick and reassemble.

g. ***WHAT TO DO IF GUN OPERATES SLOWLY WHEN CONNECTED TO A TIGHT BEARING WITHOUT DELIVERING LUBRICANT.***

This is caused by a worn or scored piston and cylinder, and will never occur if CLEAN LUBRICANT is always used. This condition is not to be confused with a dirty check valve (See Figure 227), which causes the gun to run faster without building pressure. When either the high pressure piston or cylinder are defective, they must be replaced as a unit, as they are carefully matched and lapped together.

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One-Pound Gun (Continued)

(1) Loosen retainer shell with a large wrench. Then unscrew by hand while pressing down to prevent spring and other parts from flying out.

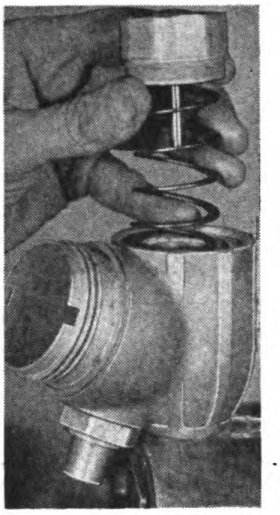


Figure 229
Removing Retainer Shell and Piston

(2) Inspect piston to see if scored or worn. Place the retainer shell in a vise (See Figure 230) and unscrew the piston retainer nut. Note that the piston is held in place by eight small steel balls. When replacing the piston put a little grease on the balls so that they will stick to the piston and facilitate reassembly.

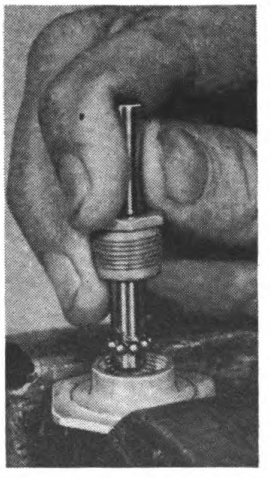


Figure 230
Piston Disassembled from Retainer Shell

When the piston is replaced, the cylinder must also be replaced with the cylinder that matches the new piston.

(3) Unscrew cylinder using a 11/16" socket wrench. Replace with new cylinder and gasket.



Figure 231
Cylinder and Gasket Removed

(4) When the cylinder is removed the outlet valve adapter should also be removed and the gasket replaced (See Figure 232). When reassembling make certain that the release valve outlet is on top, and that the high pressure cylinder is tightened so that the outlet valve adapter is pressed firmly against the gasket.

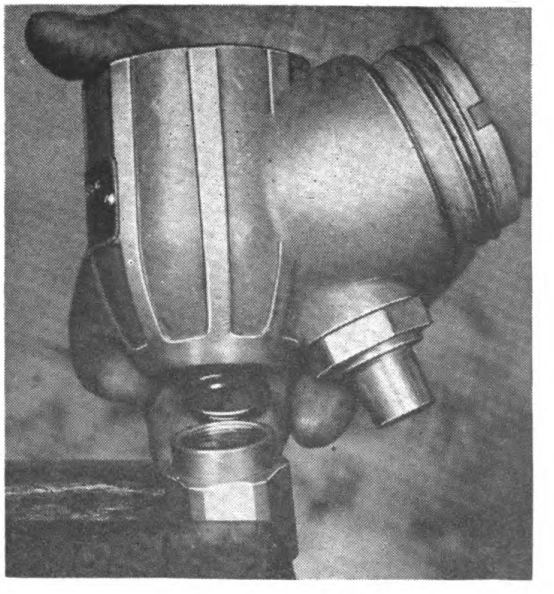


Figure 232
Outlet Valve Adapter and Gasket Removed

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One-Pound Gun (continued)

h. ***WHAT TO DO IF OUTLET SHUT-OFF VALVE LEAKS OR WILL NOT OPEN WHEN ADAPTERS ARE ATTACHED.***

If this valve leaks the cup leather should be replaced. When the valve fails to open when an extension union is tightly engaged, the valve should be disassembled and parts checked.

(1) Unscrew outlet valve from gun.

(2) Place valve in vise and unscrew retainer with wide screwdriver.

(3) Inspect and clean valve unit. Replace cup leather making certain that steel washer is used inside leather. Reassemble and replace on gun.

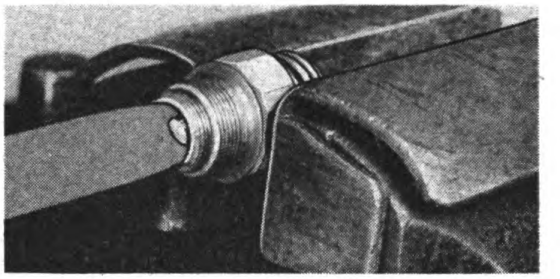


Figure 233
Disassembling Outlet Valve

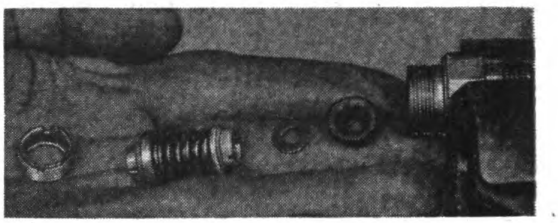


Figure 234
Outlet Valve Disassembled

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TM5-9028

PARTS CATALOG

LUBRICATOR, TRAILER MOUNTED

MODEL NO. 2430

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III. Parts Catalog

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PREPARATION OF REQUISITIONS

SAMPLE COPY FOR USE IN THE PREPARATION OF REQUISITIONS

State **PERIOD** designation by use of one of the following terms:
(1) "INITIAL"—first requisition of authorized allowances.
(2) "REPLENISHMENT"—subsequent requisitions to maintain authorized allowances.
(3) "SPECIAL"—requisitions for necessary repairs not covered by allowances.

Emergency requisitions sent by telephone, telegraph, or radio must always be confirmed immediately with requisition marked "Confirming (state identifying data)"

Prepare a separate requisition for each different machine.

Type "SPARE PARTS" in upper right hand corner of requisition form.

WAR DEPARTMENT
Q. M. C. Form No. 400
Revised Apr 8, 1931

(SAMPLE)
REQUISITION

SPARE PARTS

To: Engineer Supply Officer, Columbus Quartermaster Depot, COLUMBUS, OHIO
No. of Sheets 1 Sheet No. 1
Requisition No. E-531-3-43 Date April 23, 1943 Period Special

SHIP TO Engineer Property Officer, Pine Camp, New York
MARKED FOR: Engineer Supply Officer, 802nd Engr. Battalion, Pine Camp, N. Y.

Give complete shipping instructions. Special instructions for packing, marking, routing, etc. should be given at the end of the requisition.

REQUISITIONED BY (show Signature, Rank, Organization, Destination If different from "SHIP TO" include address)
Robert E. Roe
Robert E. Roe,
Major, C. E.,
Engineer Property Officer

APPROVED BY
John E Doe
John E. Doe,
Col., C. E.,
Executive Officer

XXXXXXX Mfg. No.	ARTICLES	UNIT	ON HAND AND DUE	CONSUMED	REQUIRED	APPROVED
	PARTS FOR LUBRICATOR, TRAILER MOUNTED, ALEMITE MODEL NO. 2430 SERIAL NO. 739531, U.S.A. REG. NO. W-00000					
	Basis: Repair of Disabled Equipment.					
	Delivery is requested by May 3, 1943					
	WISCONSIN ENGINE GROUP Wico Magneto					
1196	CONTACT, Fixed	ea	0	1	1	
X1408	ARM, Breaker	ea	0	1	1	
X1413	CONDENSER	ea	0	1	1	
	ALEMITE HIGH PRESSURE PUMP GROUP					
131396	PACKING	ea	0	2	2	
131397	BODY, Valve	ea	0	1	1	
131398	SEAT, Valve	ea	0	1	1	
	NONEXPENDABLE ARTICLES SHOWN HAVE BEEN PLACED ON I&I REPORT (REPORT OF SURVEY OR STATEMENT OF CHARGES)					

State proper nomenclature of machine and make, model, serial number and registration number.

State basis or authority and date delivery is required, immediately below description of machine.

State manufacturers' parts numbers and nomenclature descriptions accurately and completely. Do not use abbreviations.

Group parts required under group headings as shown in manufacturers' parts catalogs.

Double space between items

Nonexpendable items must be accounted for.

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PREPARATION OF REQUISITIONS

A Sample requisition in the correct form for submission by the Engineer Property Officer is shown on the opposite page.

THIS SHALL BE FOLLOWED IN MAKING OUT REQUISITIONS.

In order to eliminate duplication of work, Property Officers may authorize organizations to prepare requisitions in final form, leaving requisition number space blank for completion by Property Officer.

THE FOLLOWING RULES WILL BE OBSERVED CAREFULLY IN PREPARING REQUISITIONS FOR SPARE PARTS:

a. Prepare a separate requisition for each different machine.

b. Type "SPARE PARTS" in upper right hand corner of requisition form.

c. State PERIOD designation by use of one of the following terms:

   (1) "INITIAL"—first requisition of authorized allowances.

   (2) "REPLENISHMENT"—subsequent requisitions to maintain authorized allowances.

   (3) "SPECIAL"—requisitions for necessary repairs not covered by allowances.

d. Give complete shipping instructions.

e. State proper nomenclature of machine, and make, model, serial number and registration number.

f. State basis or authority, and date delivery is required, immediately below description of machine.

g. Group parts required under group headings as shown in manufacturers' parts catalogs.

h. State manufacturers' parts numbers and nomenclature descriptions accurately and completely. Do not use abbreviations.

i. Double space between items.

j. Emergency requisitions sent by telephone, telegraph, or radio must always be confirmed immediately with requisition marked: "*Confirming* (state identifying data)".

k. Nonexpendable items must be accounted for.

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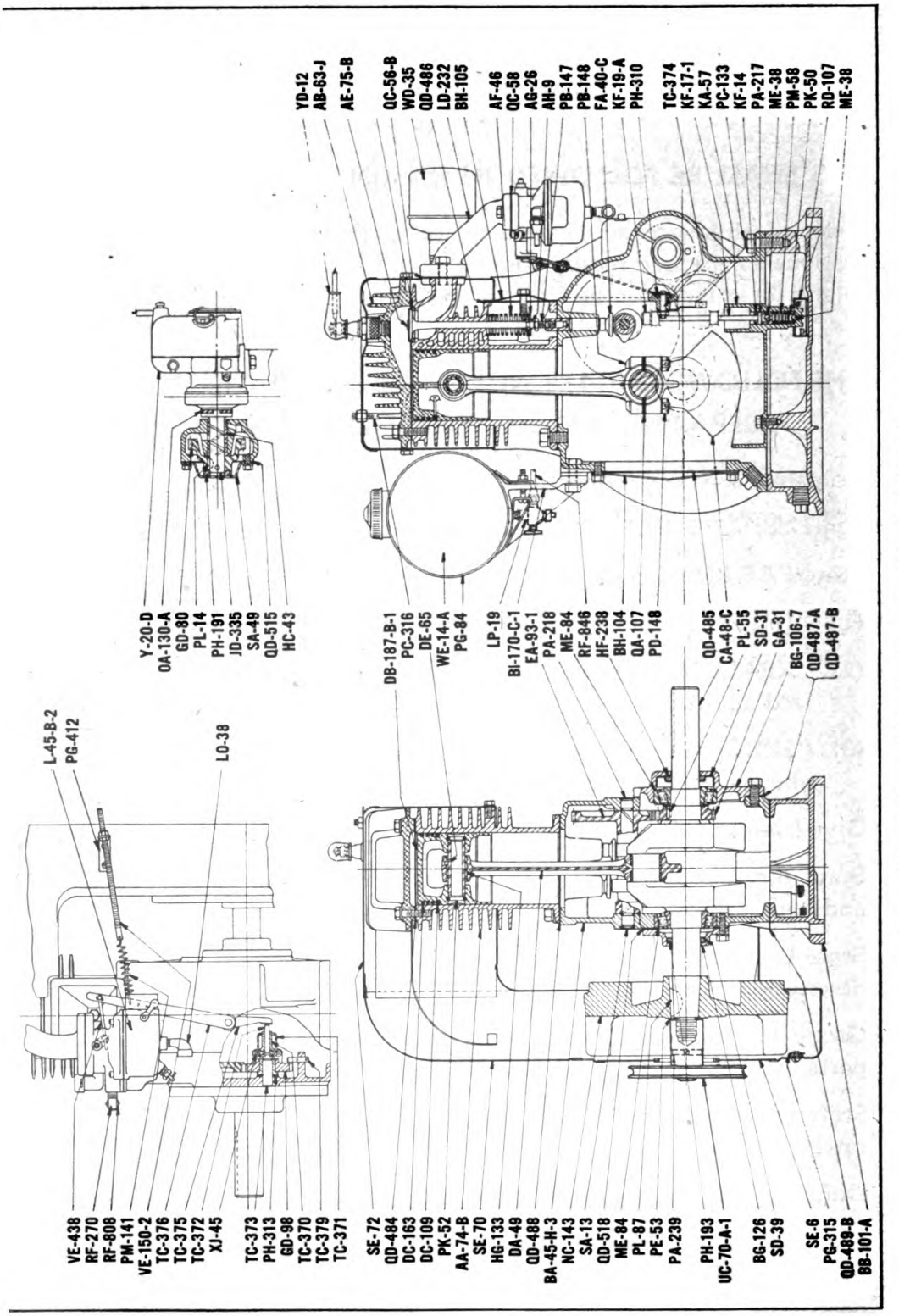


Figure 235 Detail Drawing of Model AEH Engine

(See pages 105 to 112 for exploded views)

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Engine Cylinder Assembly

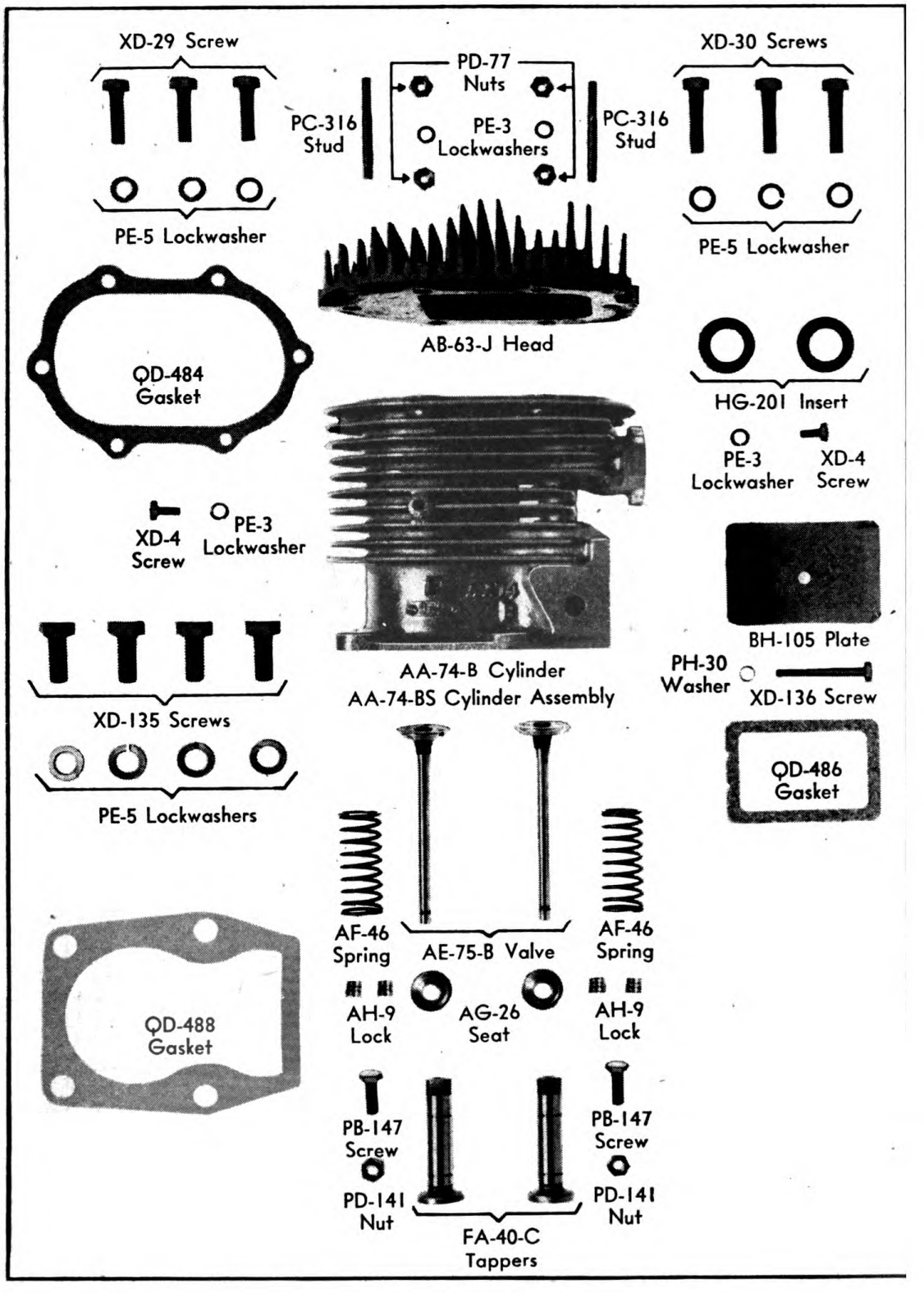


Figure 236

Cylinder Assembly for Model AEH Engine

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Engine Crankshaft and Piston Assembly

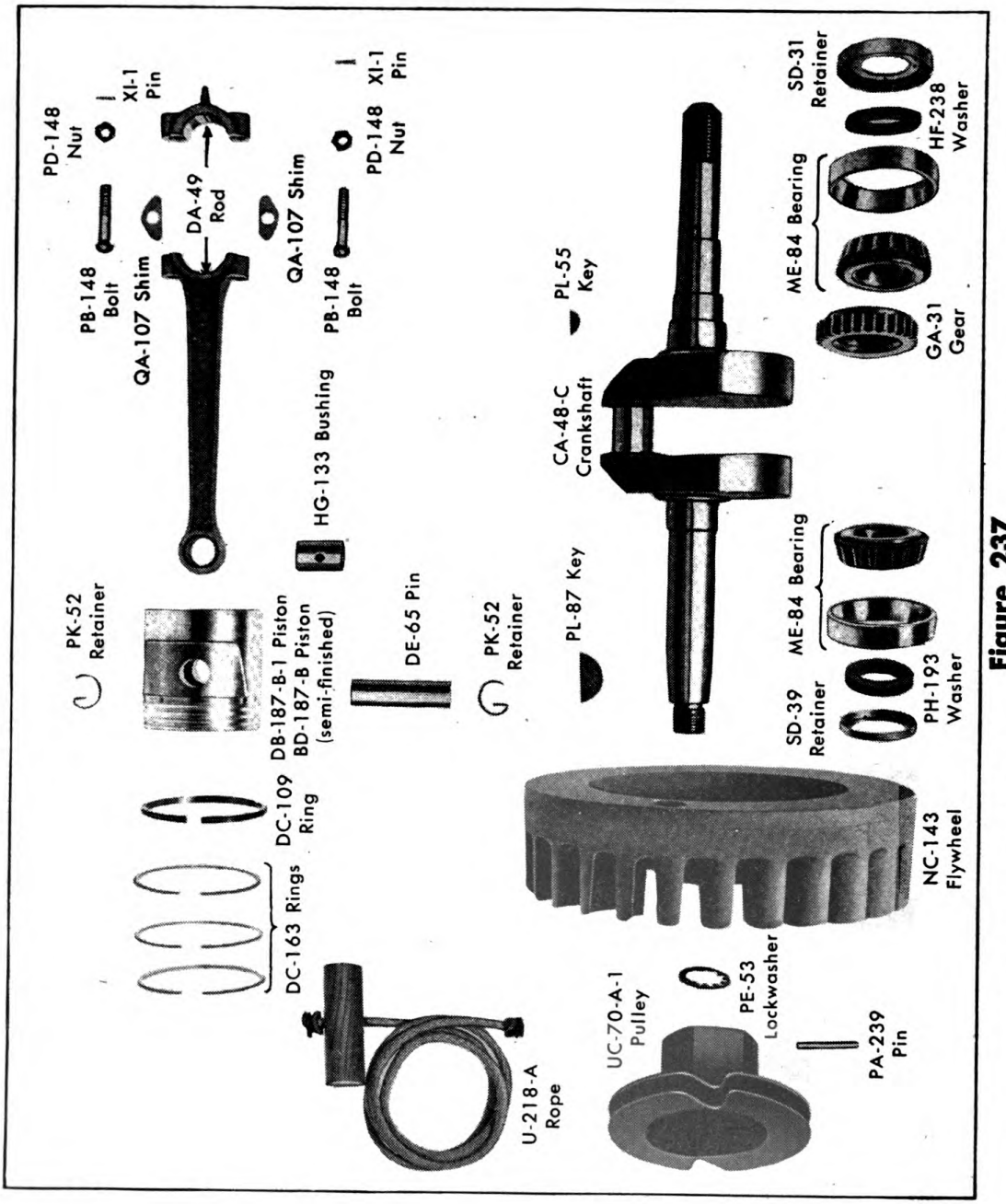


Figure 237
Crankshaft and Piston Assembly for Model AEH Engine

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Engine Crankcase Assembly

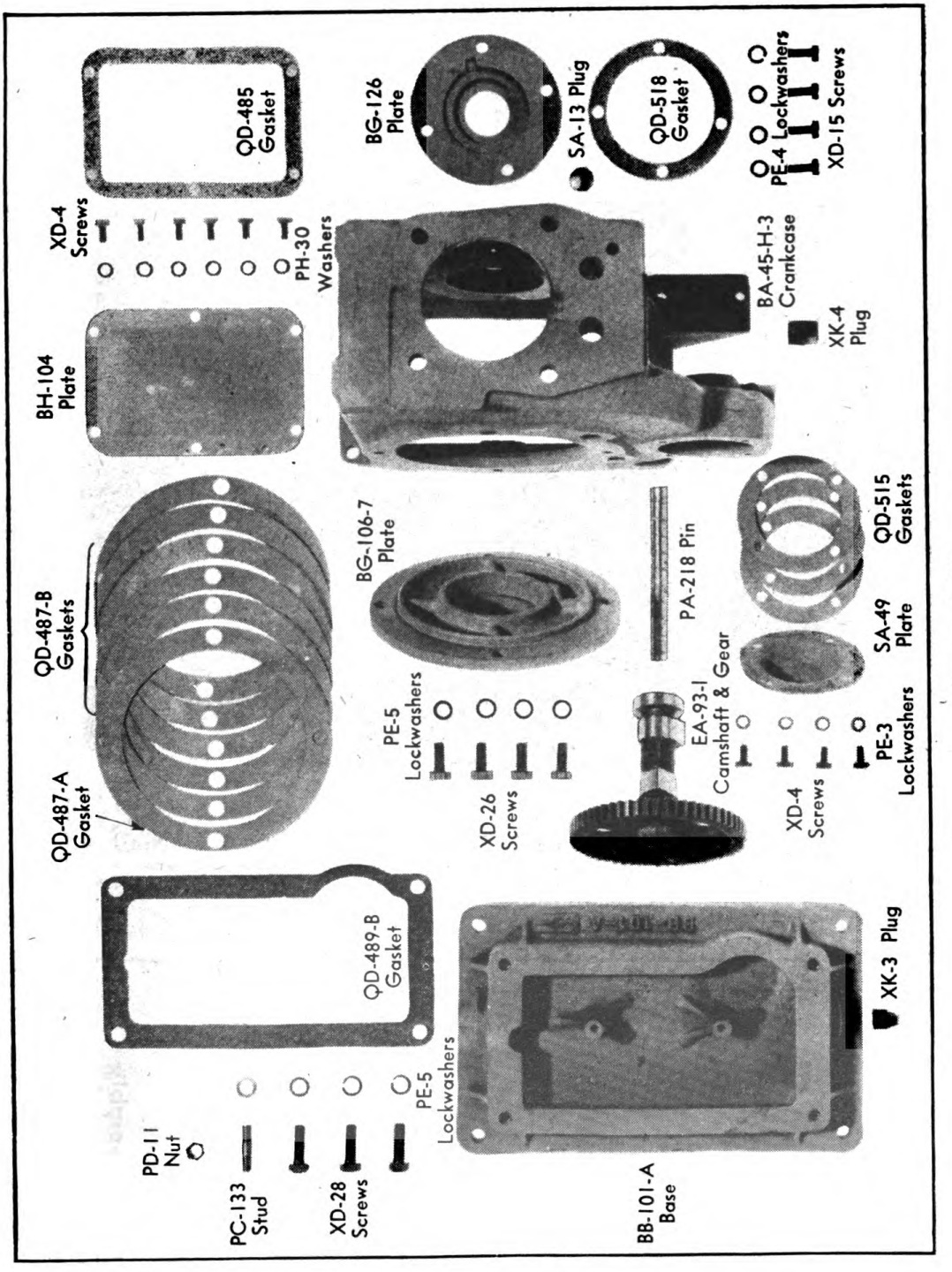


Figure 238
Crankcase Assembly for Model AEH Engine

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Engine Oil Pump, Shrouding and Fuel Tank

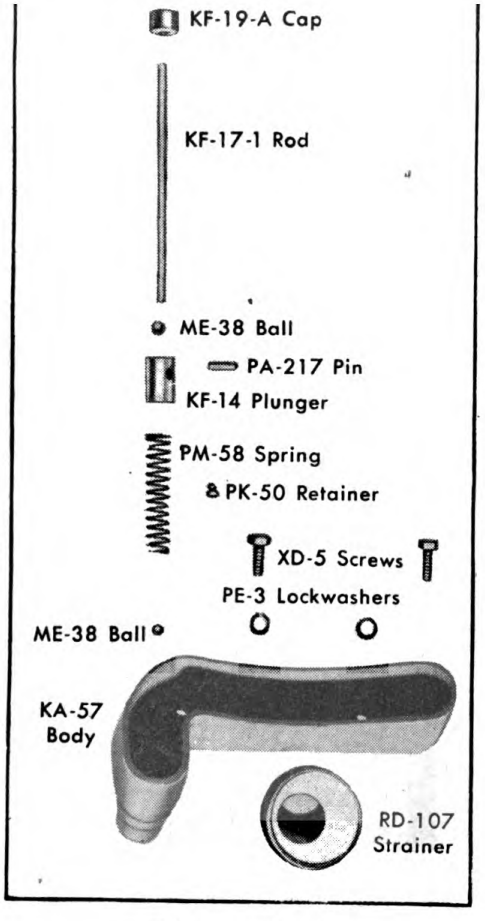


Figure 239
Oil Pump Assembly for Model AEH Engine

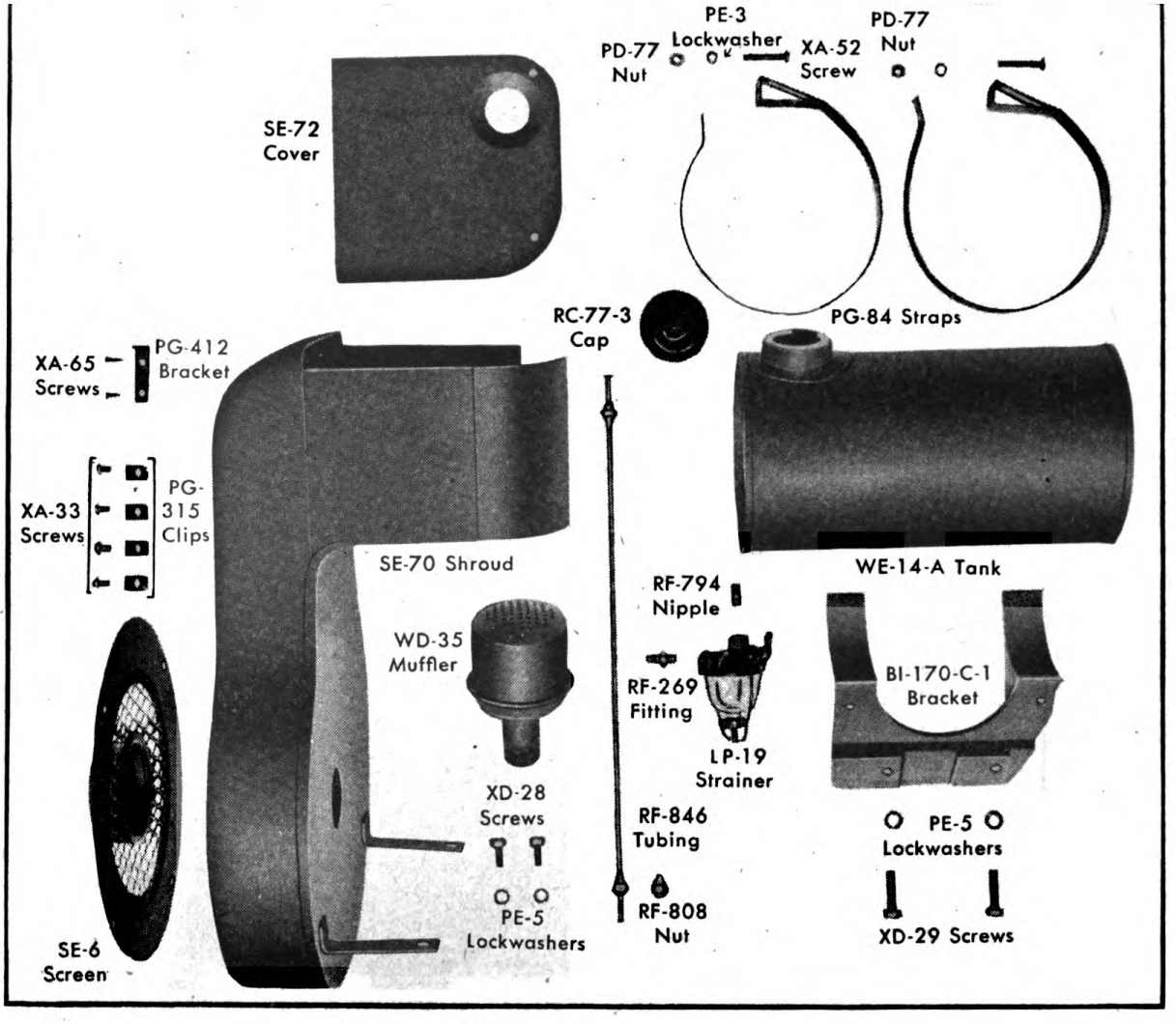


Figure 240
Shrouding and Fuel Tank for Model AEH Engine

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Engine Manifold and Breather Assemblies

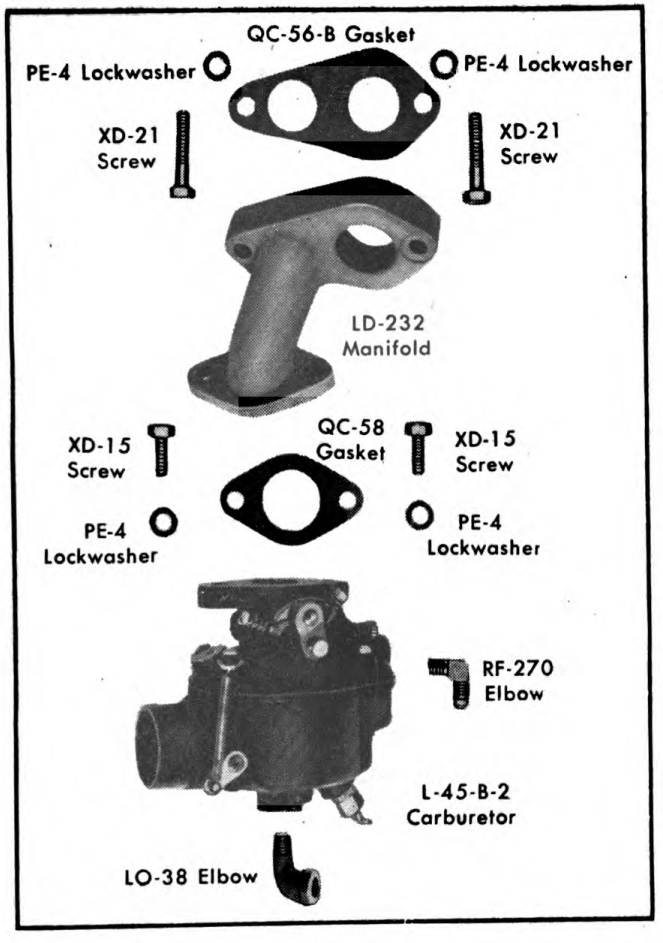


Figure 241
Manifold Assembly for Model AEH Engine

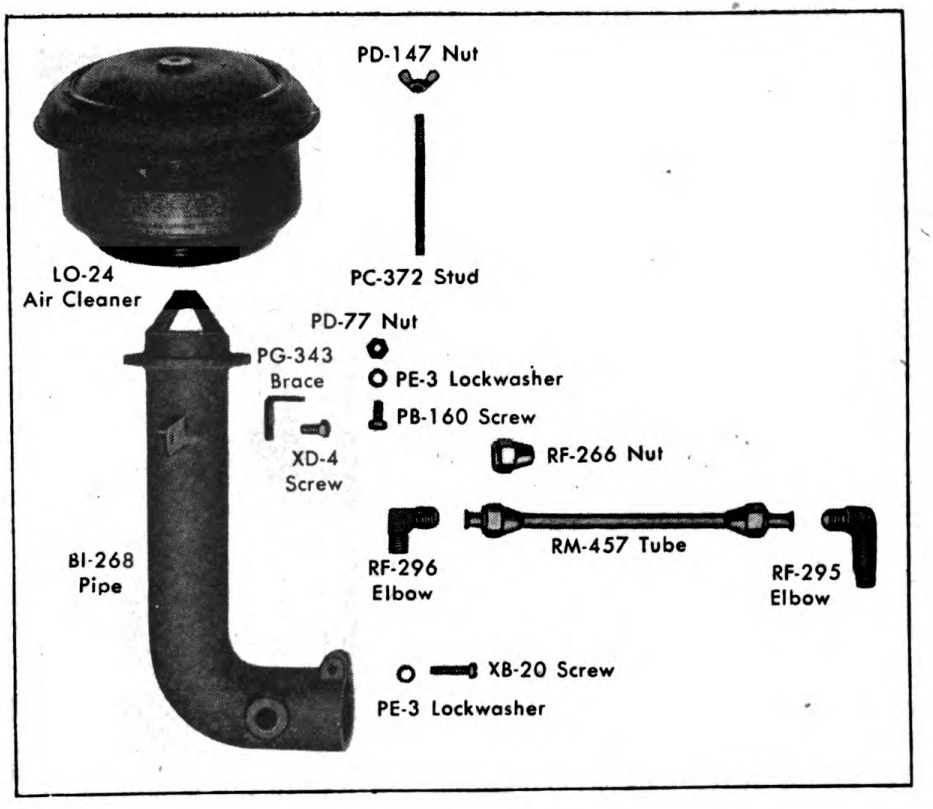


Figure 242
Breather Assembly for Model AEH Engine

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Original from UNIVERSITY OF CALIFORNIA

Engine Governor, Magneto Drive, and Air Cleaner

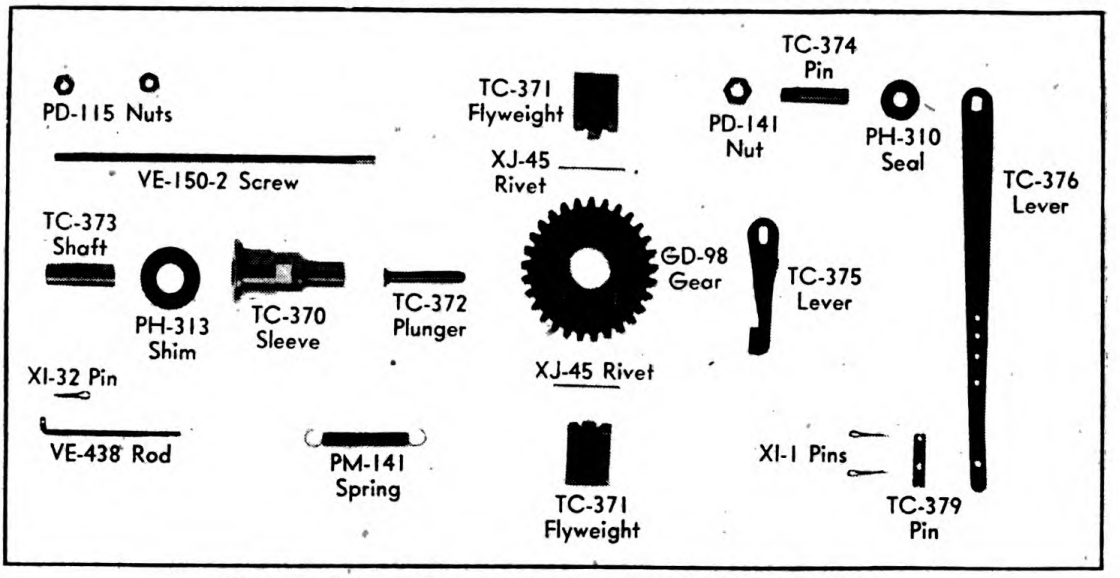


Figure 243 Governor for Model AEH Engine

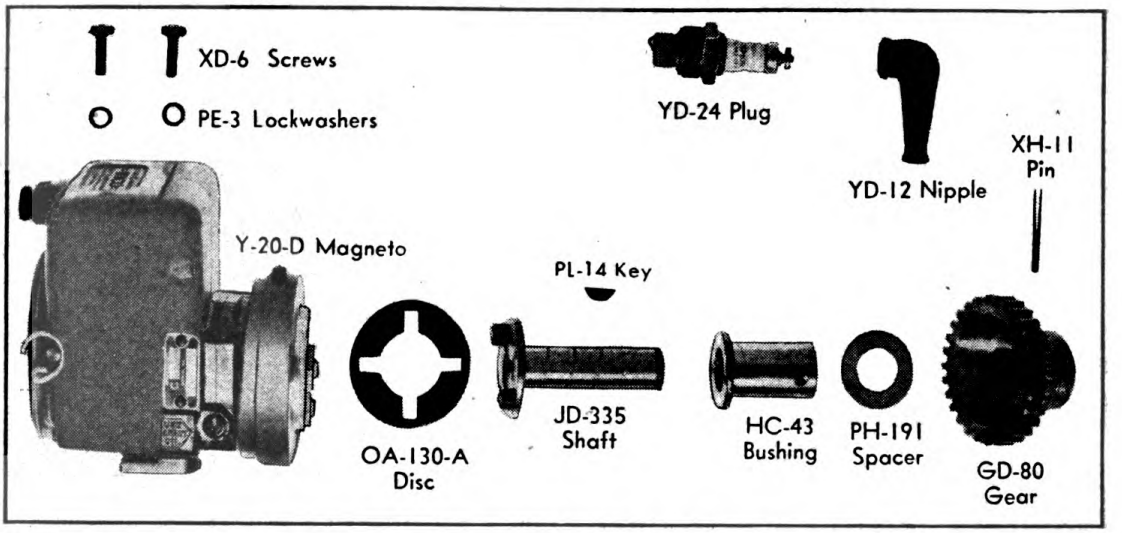


Figure 244
Magneto Drive for Model AEH Engine

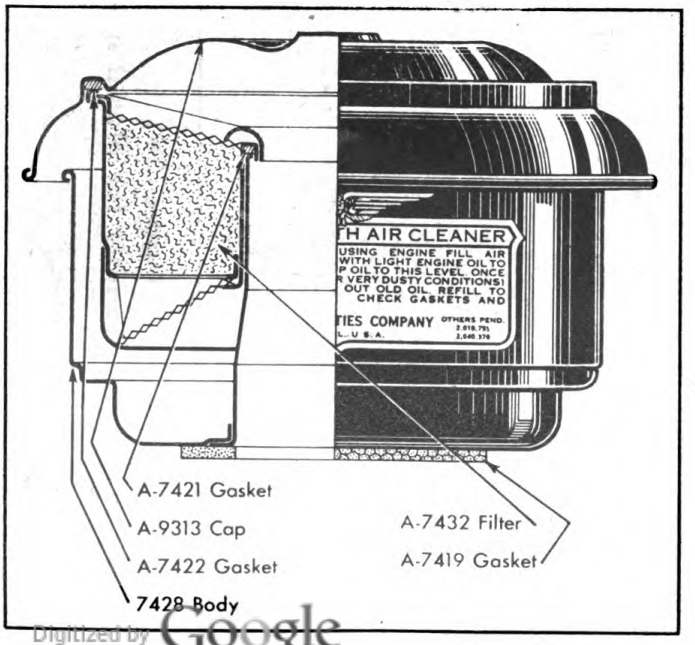


Figure 245
No. LO-24 Air Cleaner (American Specialties No. H-55-7185)

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Engine Magneto and Fuel Strainer

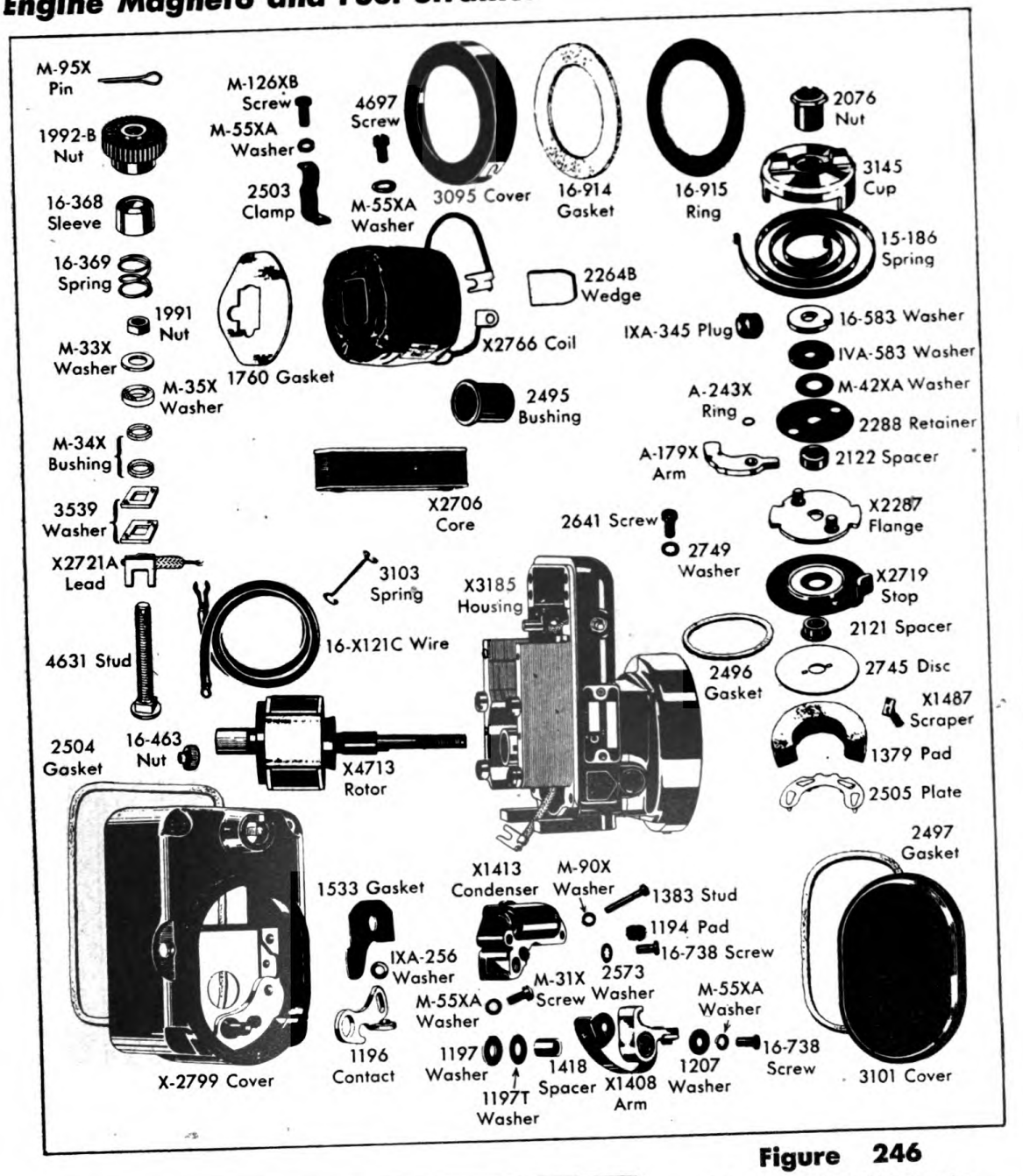


Figure 246
No. Y-20-D Magneto
(Wico No. C-150-C Special)

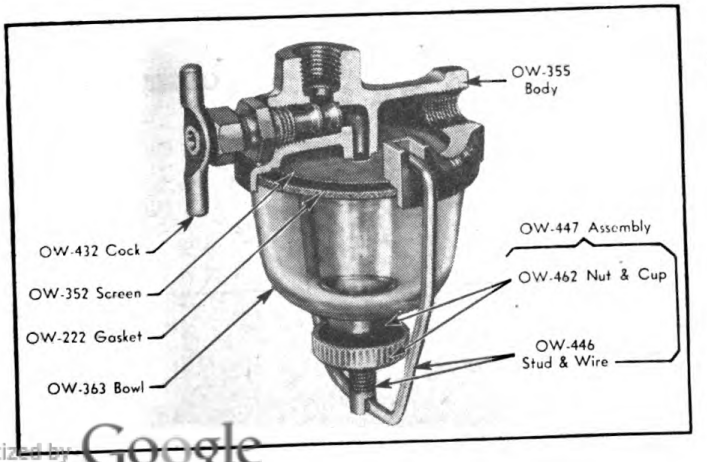


Figure 247
No. LP-19 Fuel Strainer
(Tillotson No. OW-418)

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Engine Carburetor

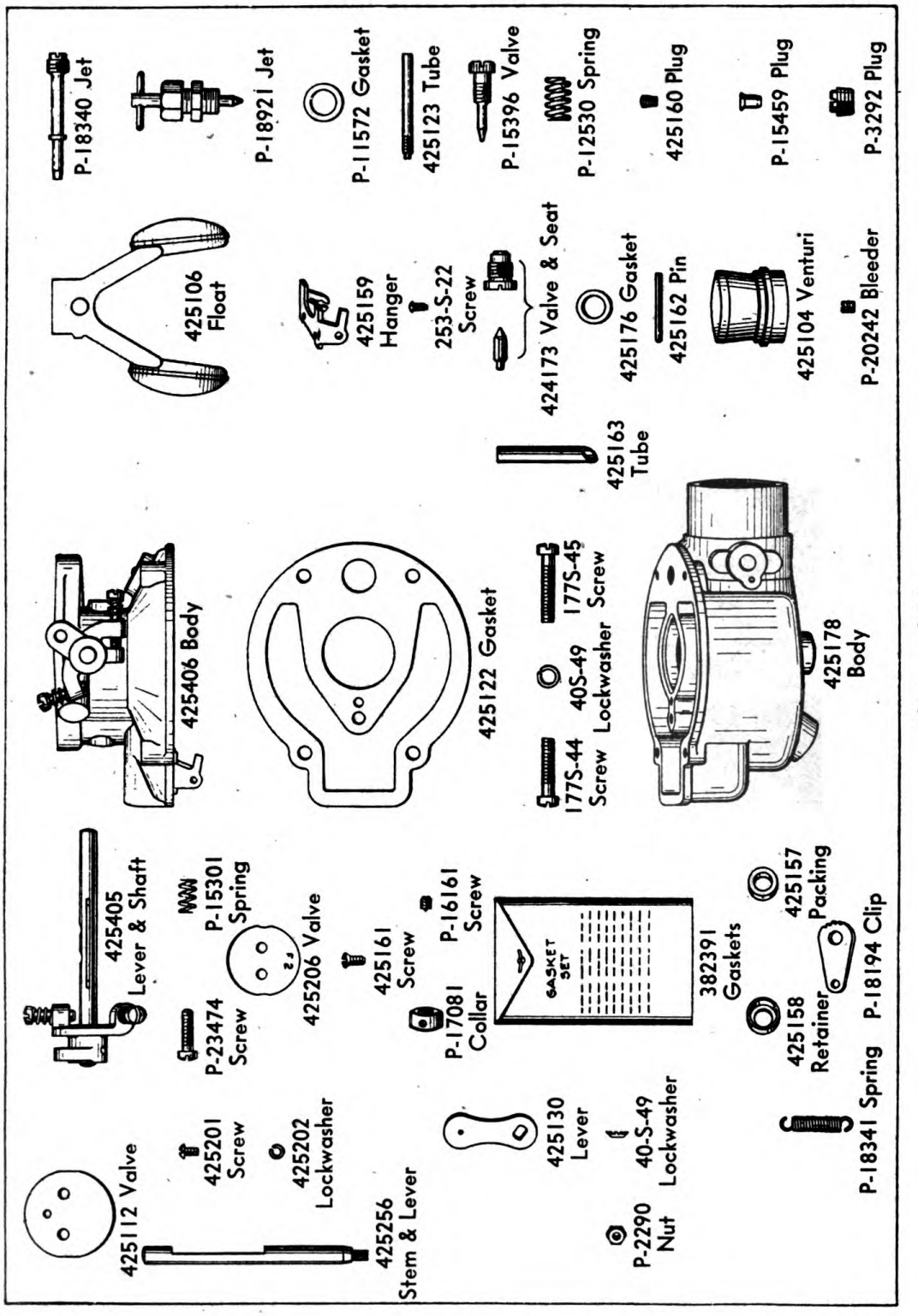


Figure 248
No. L-45-B-2 Carburetor (Stromberg No. 426020)

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Air Compressor

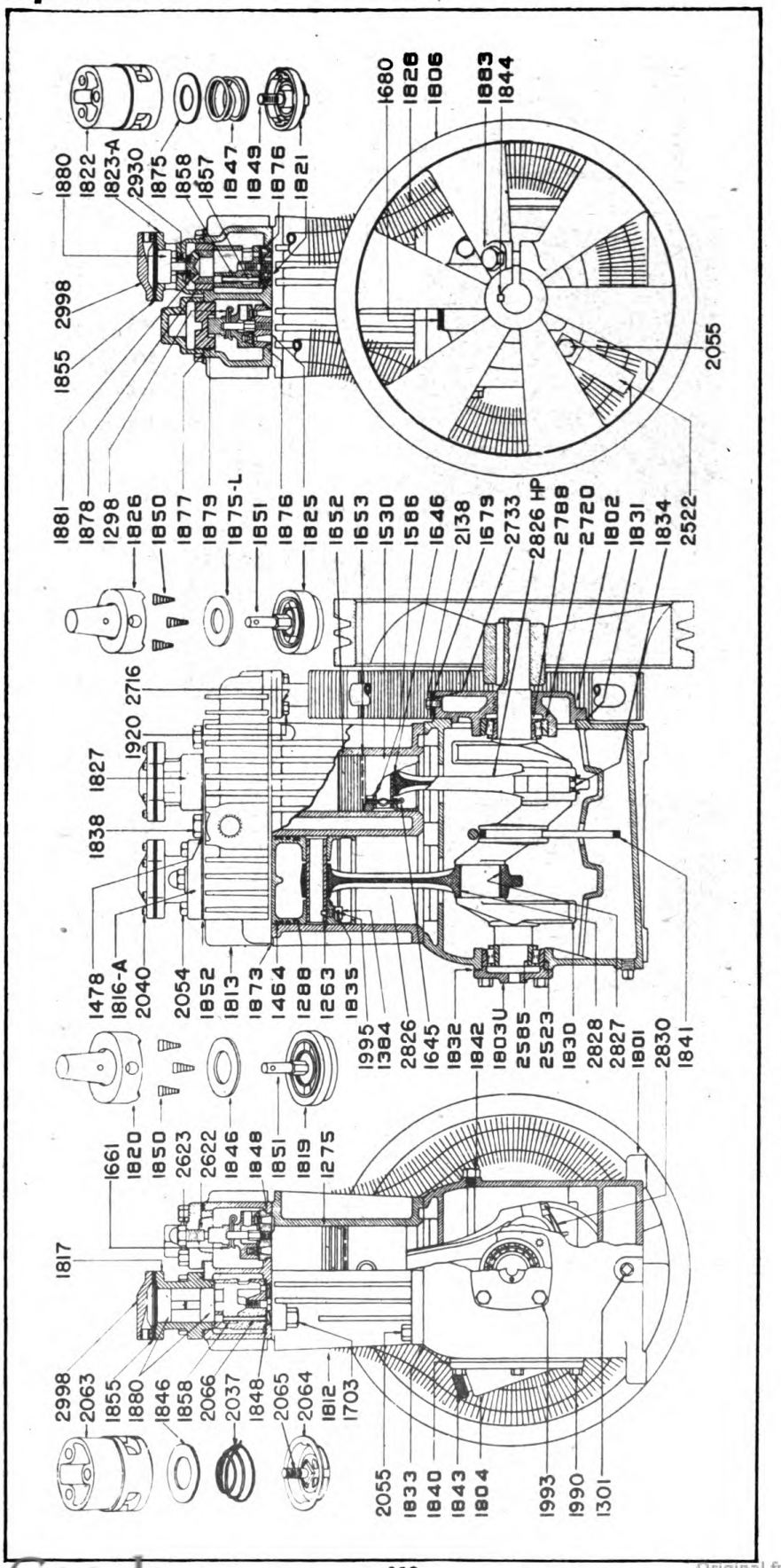


Figure 249 Detail Drawing of Model 320 Compressor
(See pages 114 to 117 for exploded views)

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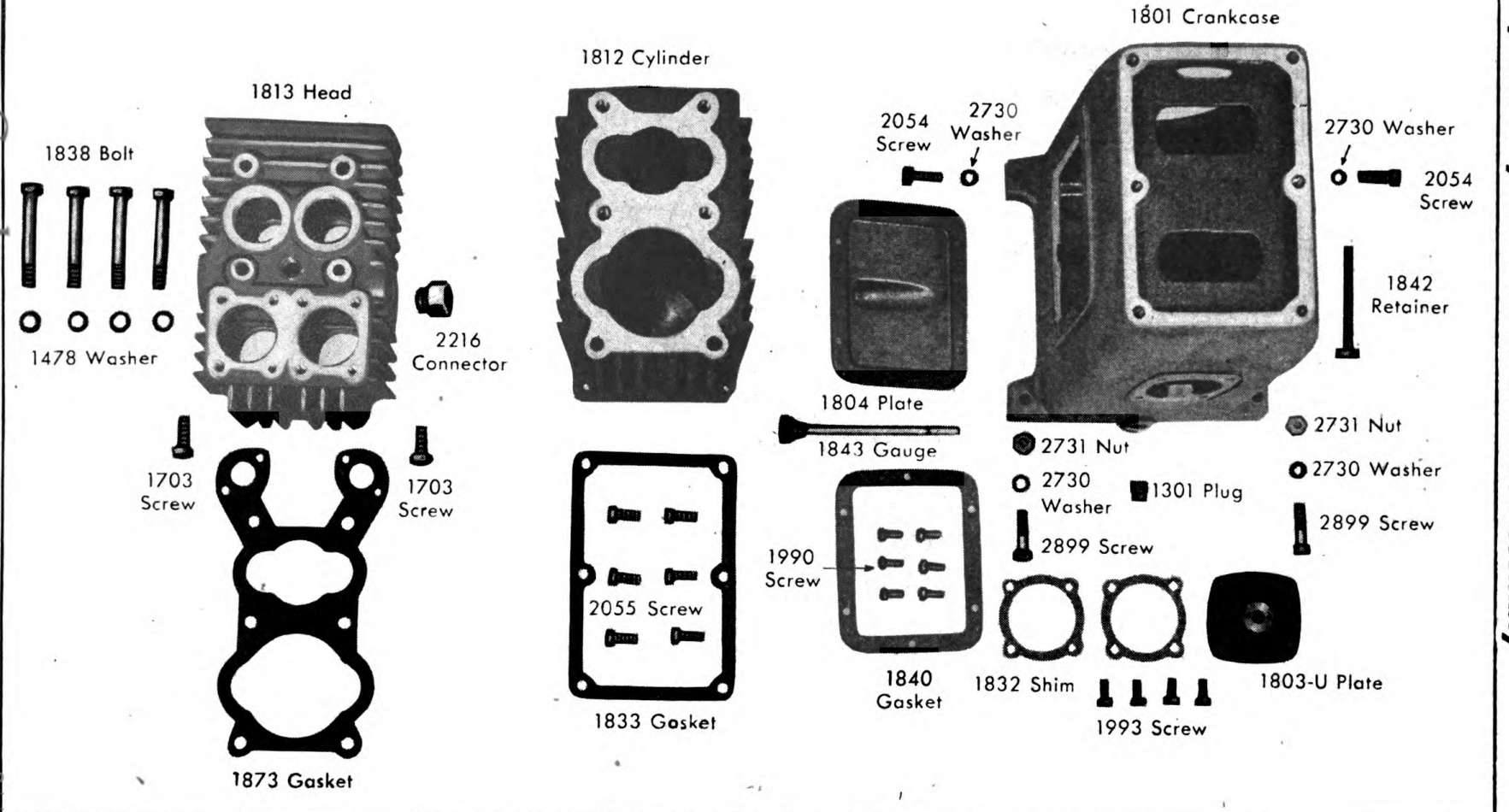


Figure 250
Cylinder and Crankcase Assembly for Model 320 Compressor

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Compressor Crankshaft and Pistons Assembly

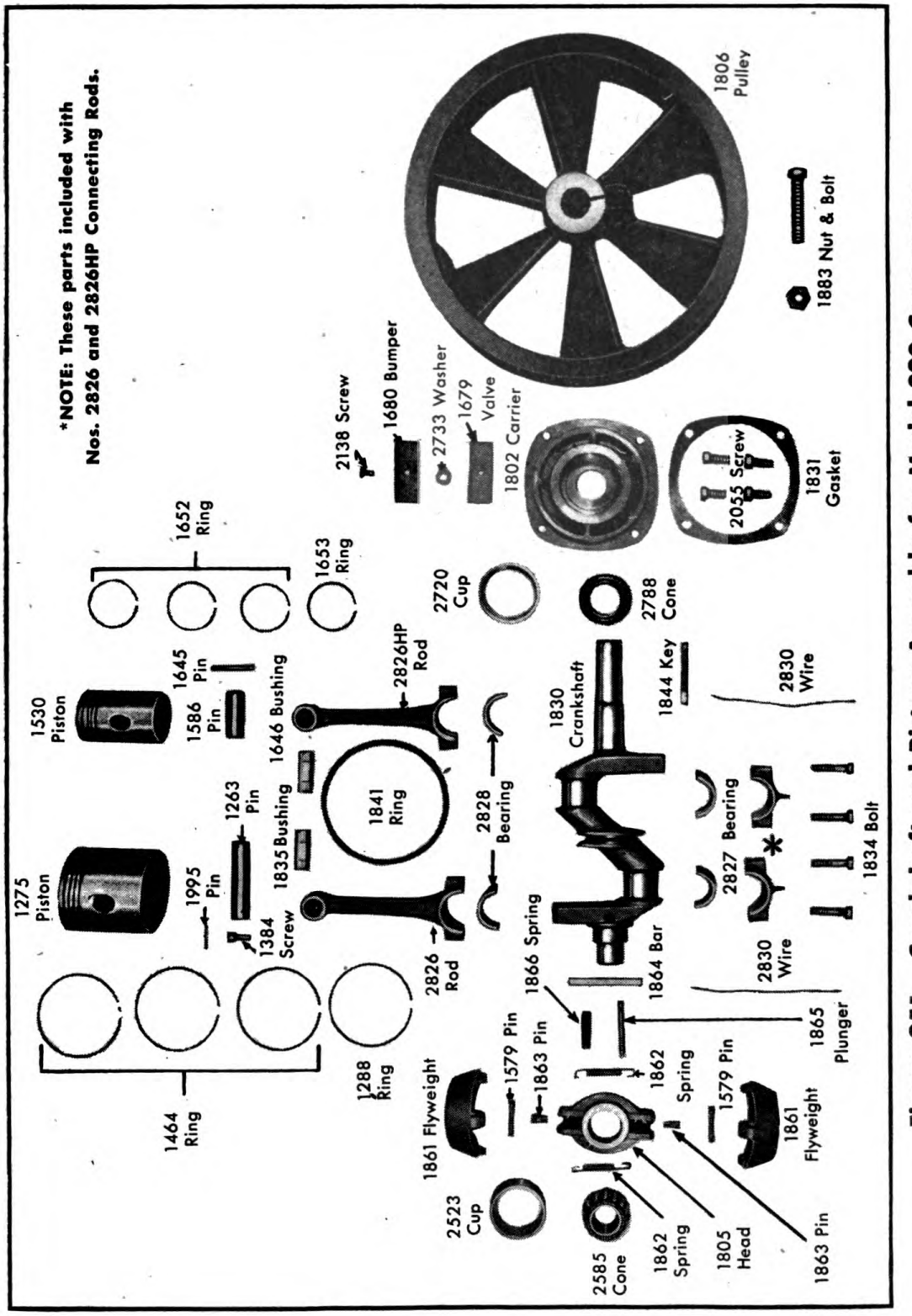


Figure 251 Crankshaft and Pistons Assembly for Model 320 Compressor

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Compressor Diaphragms, Valves, and VD Unloader Pilot

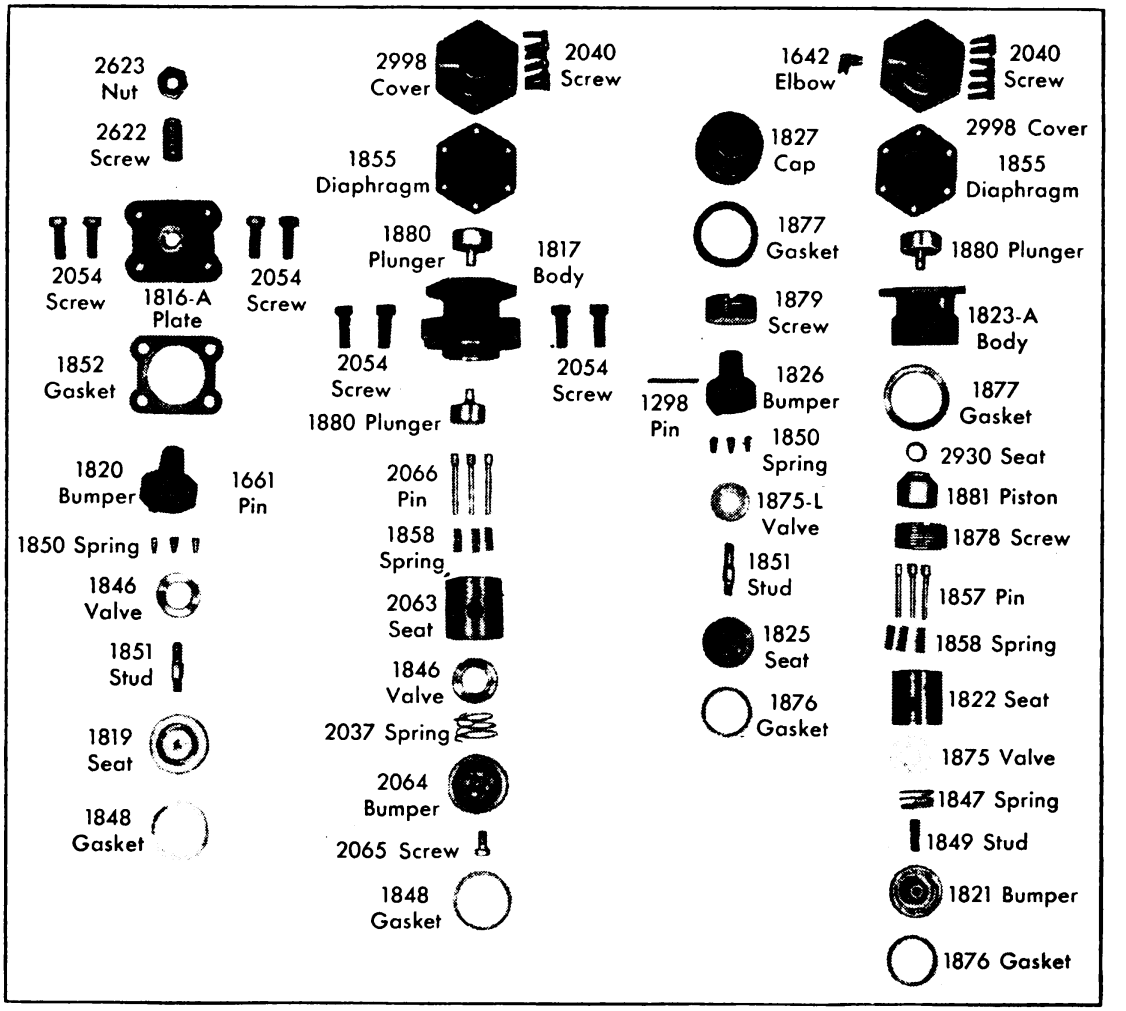


Figure 252
Diaphragms and Valves for Model 320 Compressor

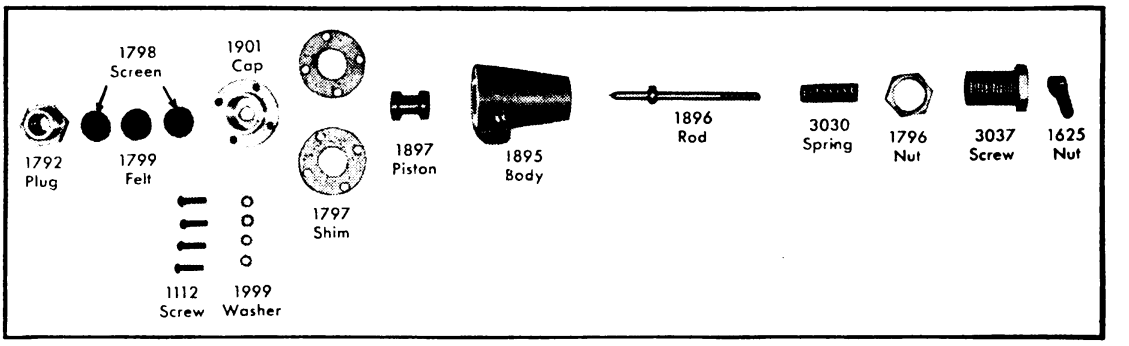


Figure 253
Model VD-2 Unloader Pilot

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Compressor Air Filter and Tubes

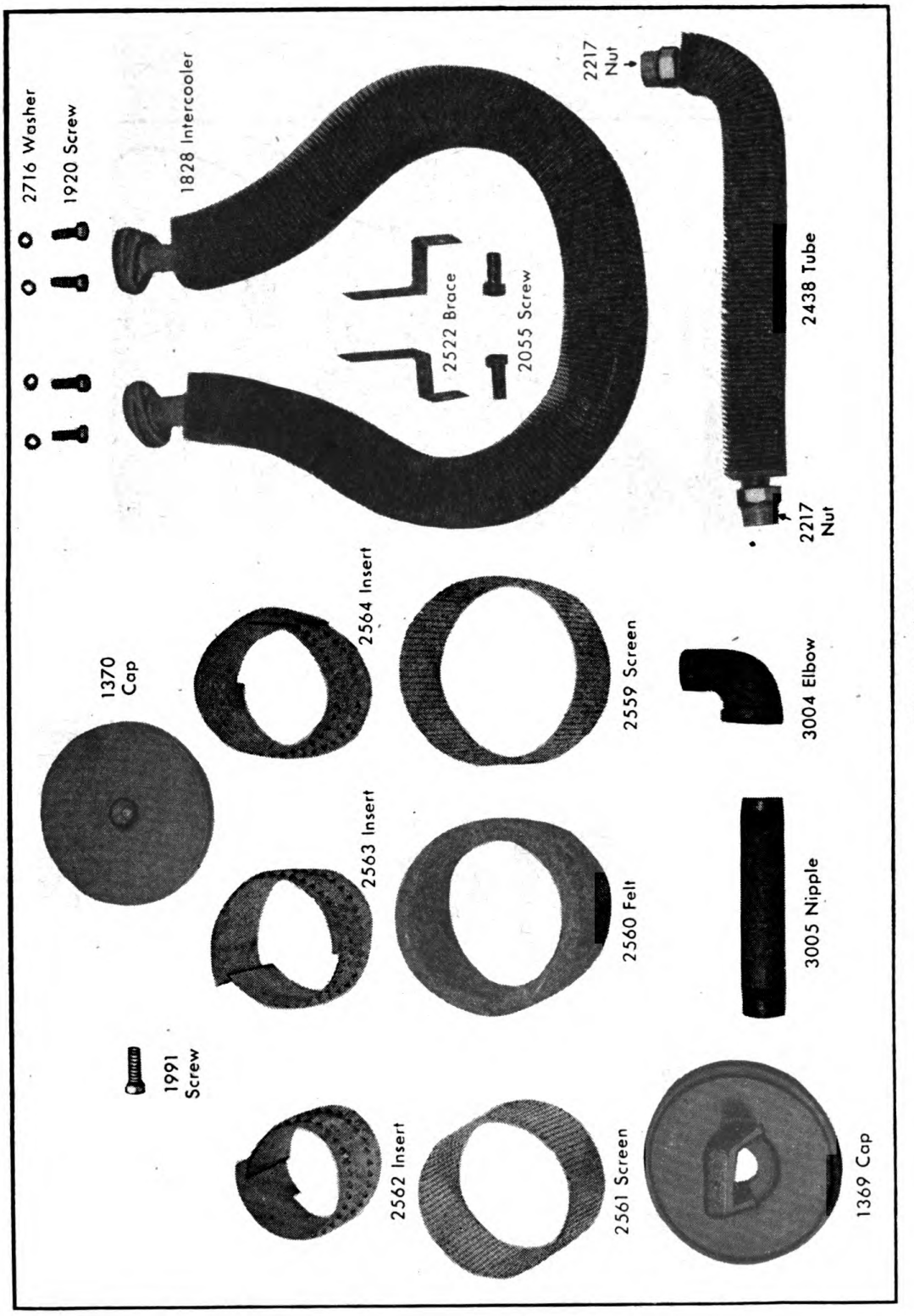


Figure 254
Air Filter, Intercooler and Discharge Tubes for Model 320 Compressor

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Air Receiver and Manifold

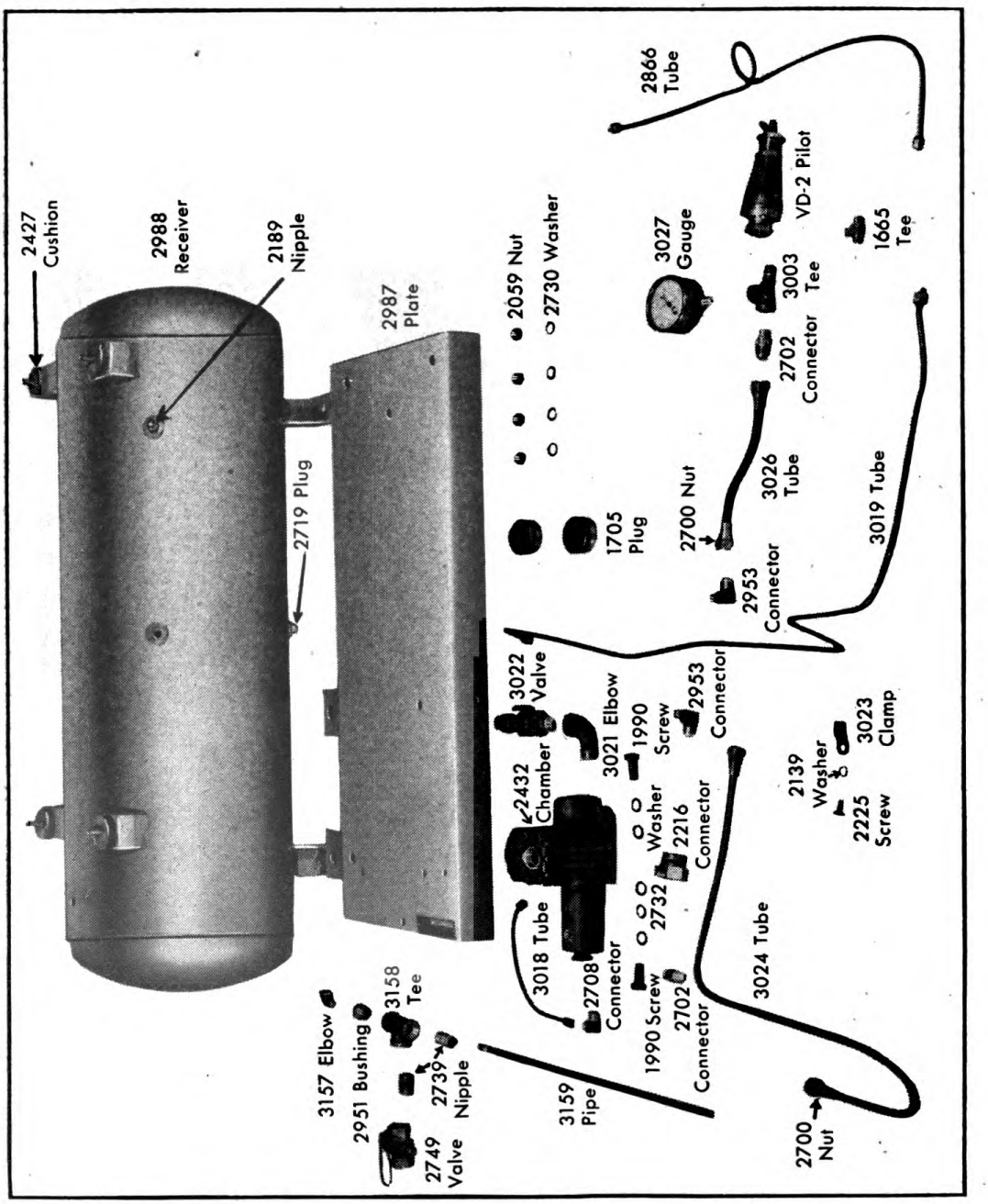


Figure 255
Air Receiver, Manifold, and Tubing

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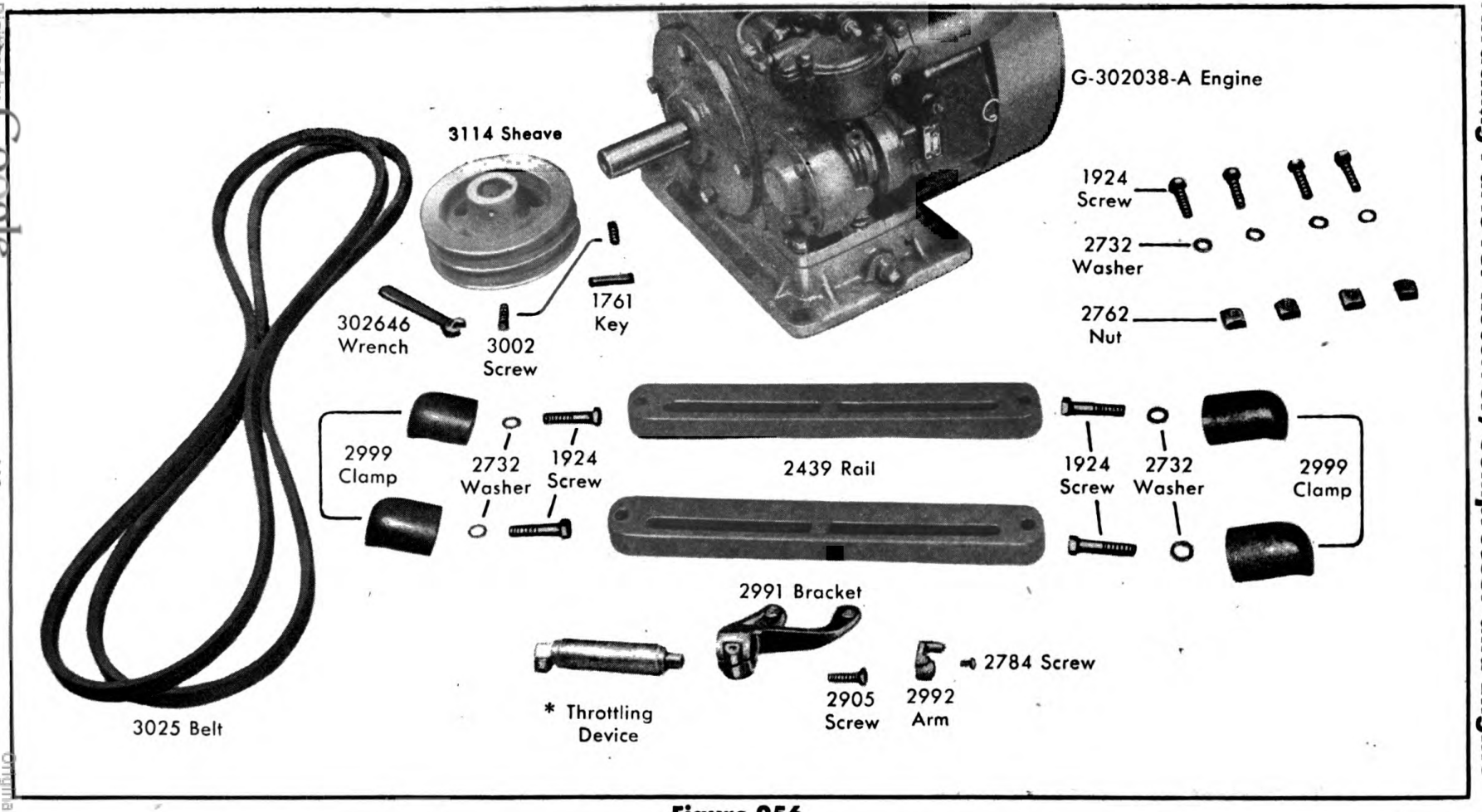


Figure 256

Miscellaneous Parts for Attaching Engine to Compressor and Receiver Unit

***Throttling device illustrated above is not available for service. If this part is defective, Part No. 3101 Throttling Device should be ordered. The No. 2991 Bracket (illustrated above) is used only with the old style throttling device. The bracket for the new style throttling device is included in the No. 3101 Assembly (see Figure 259).**

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Check Valve, Three-Way Valve, and Throttling Device

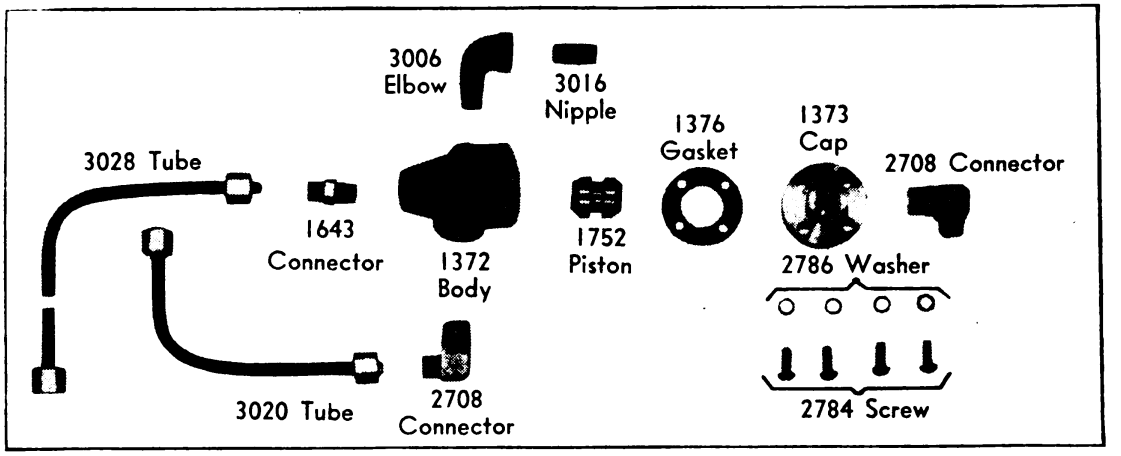


Figure 257
No. 3112 Dual Control Check Valve

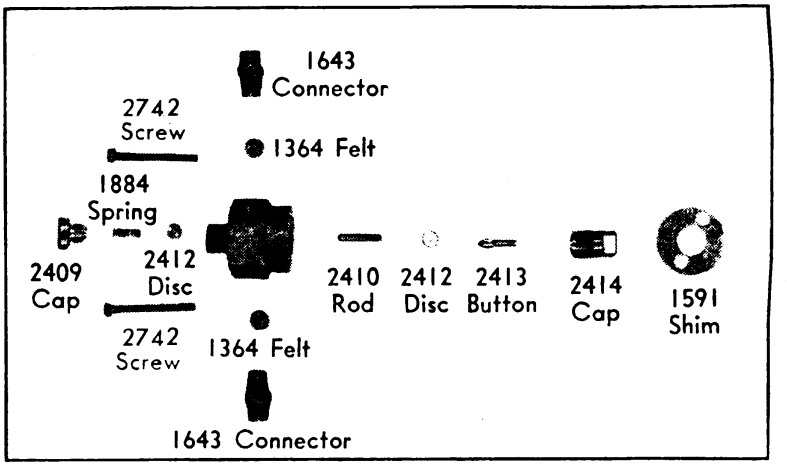


Figure 258
No. 2415 Three-way Valve
NOTE: If Body Assembly for above valve is required for service, entire No. 2415 Three-way Valve should be replaced.

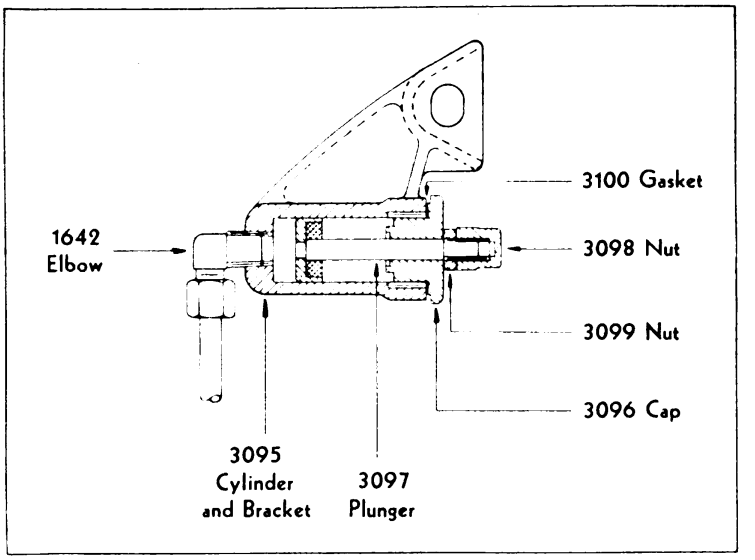


Figure 259
No. 3101 Throttling Device

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Pump Air Motor Assembly

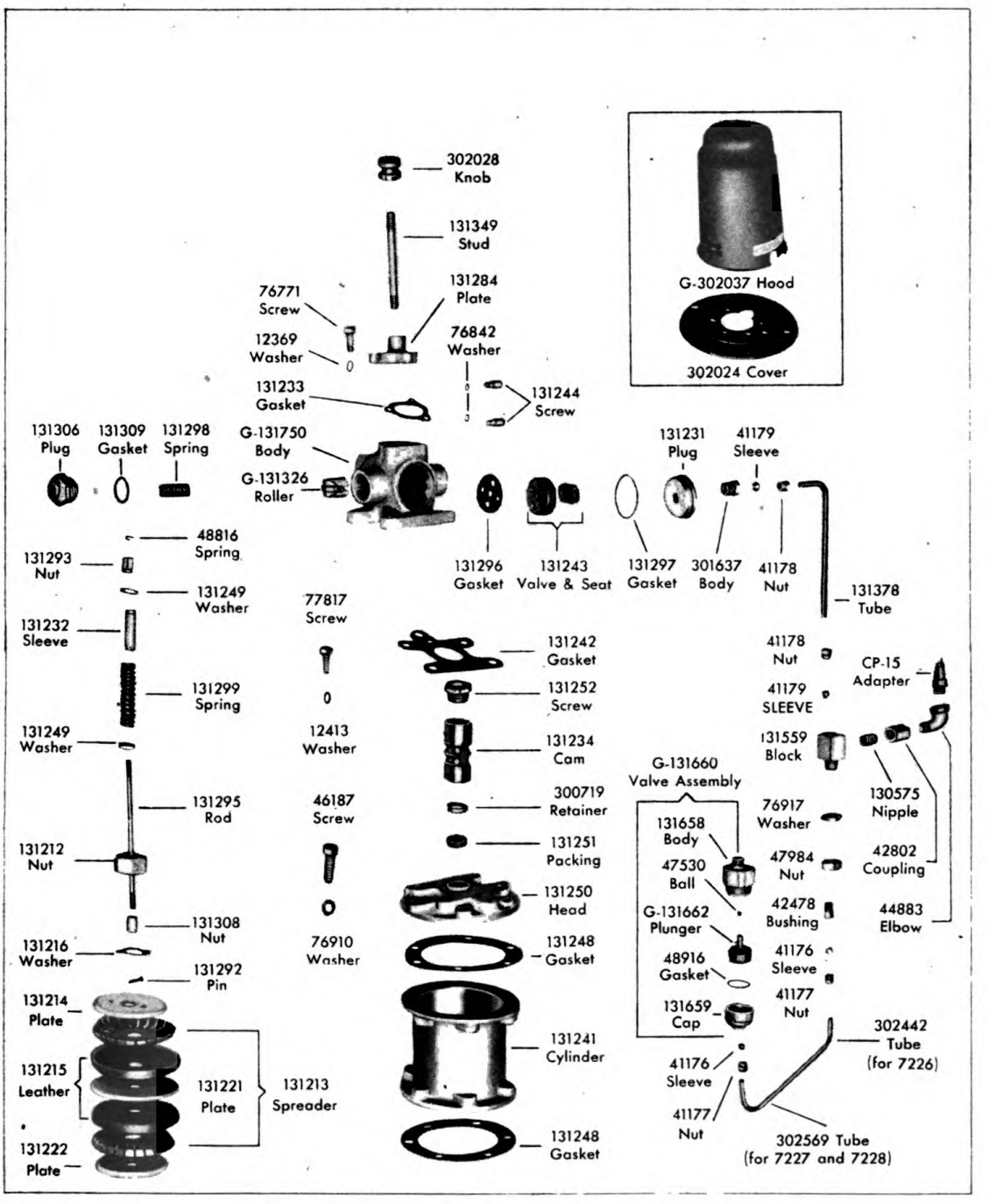


Figure 260

Air Motor Assembly for Models 7226, 7227 and 7228 Lubricant Pumps

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High Pressure (Chassis) Pump

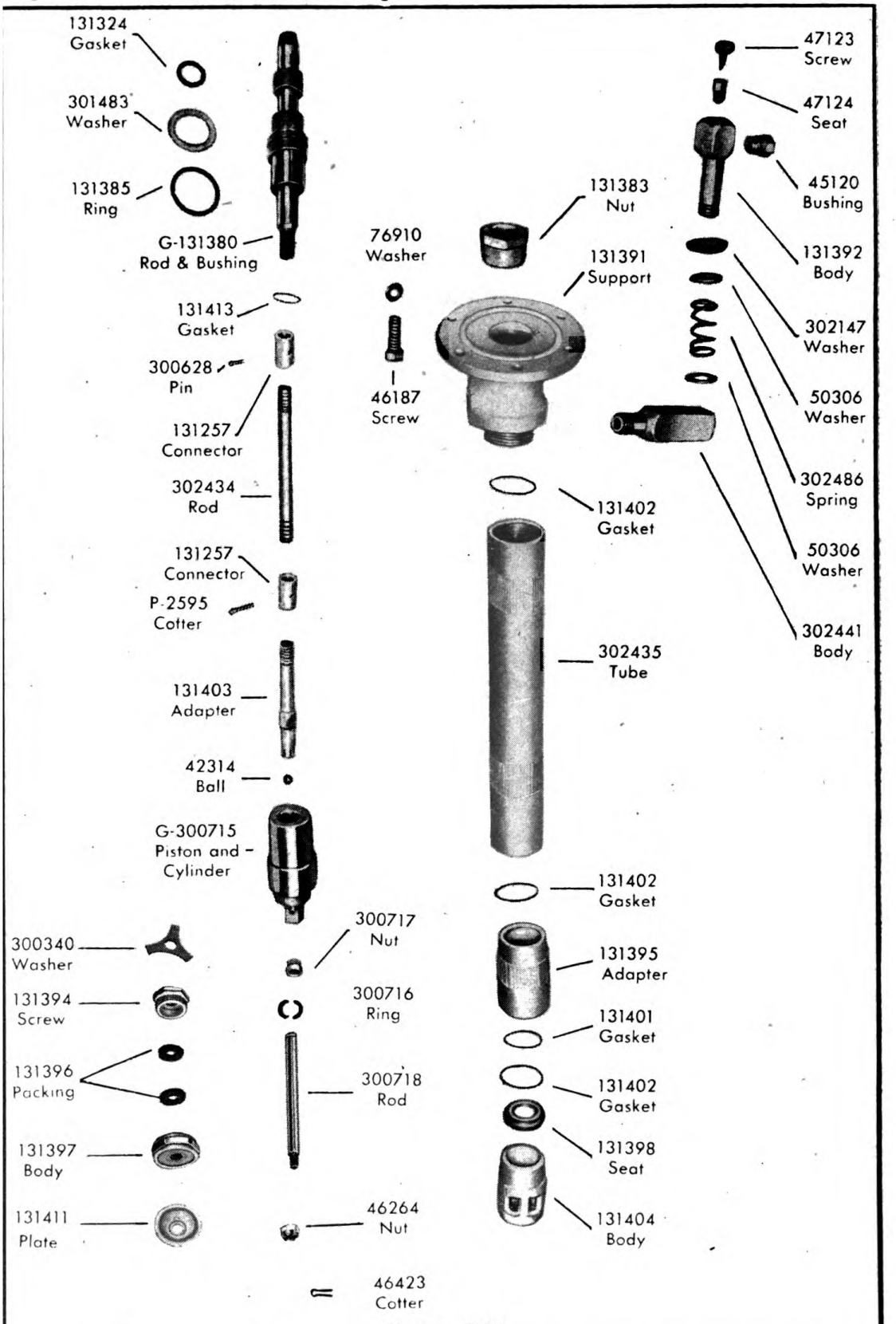


Figure 261

Model 7226 High Pressure Pump (less Air Motor, See page 121)

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Low Pressure (Gear or Motor Oil) Pump

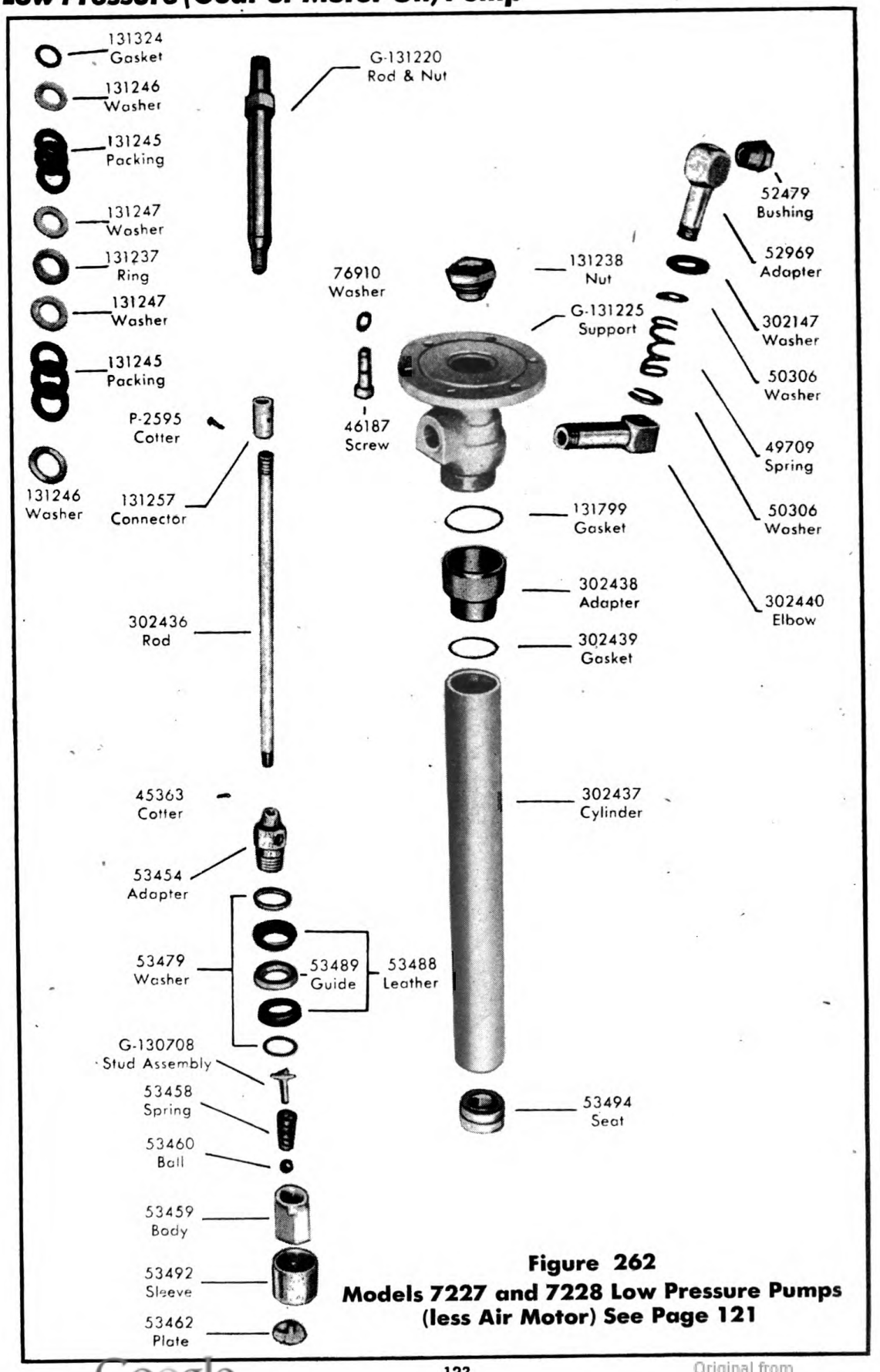


Figure 262
Models 7227 and 7228 Low Pressure Pumps (less Air Motor) **See Page 121**

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Oil Spray Gun

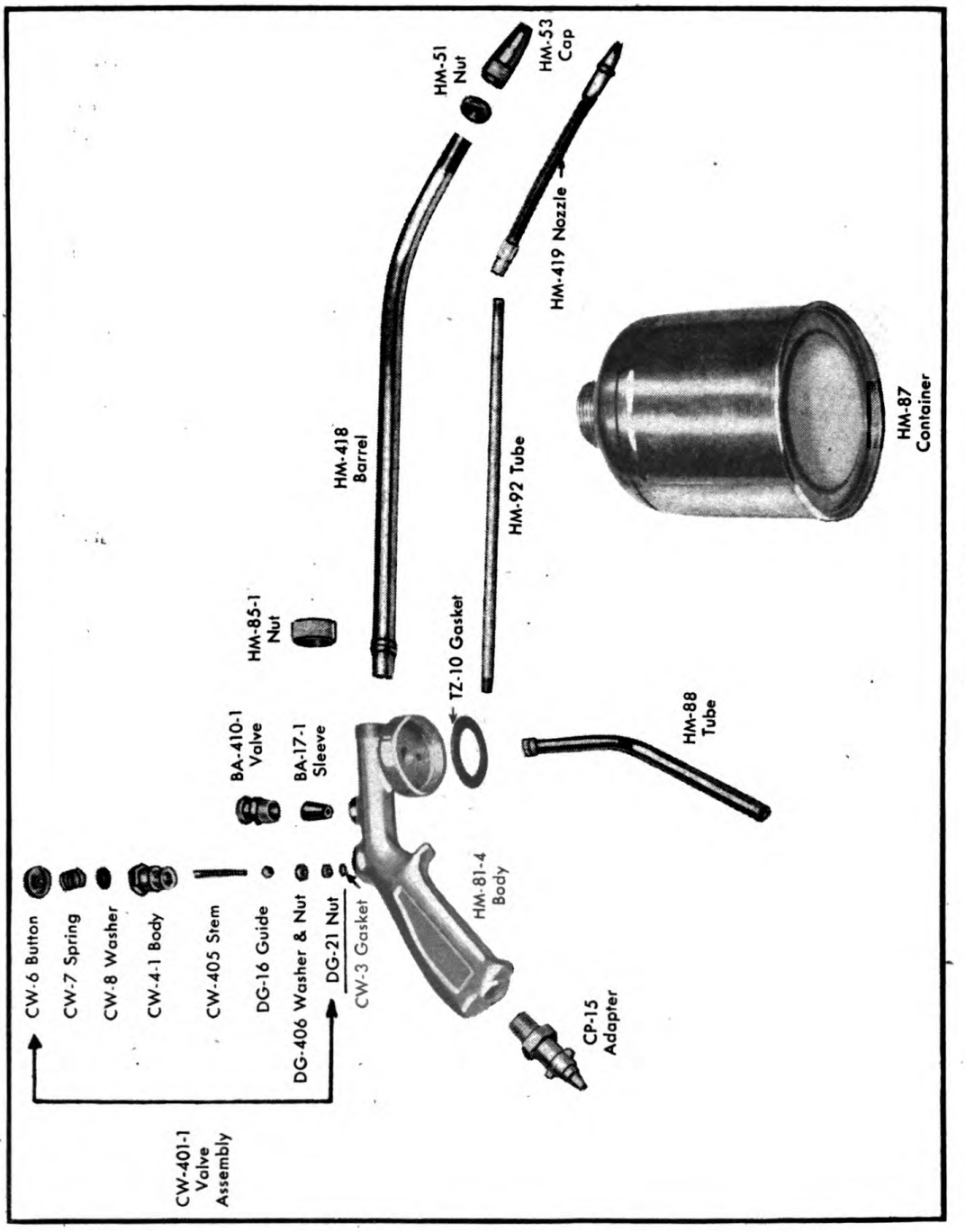


Figure 263
Model 5328 Oil Spray Gun

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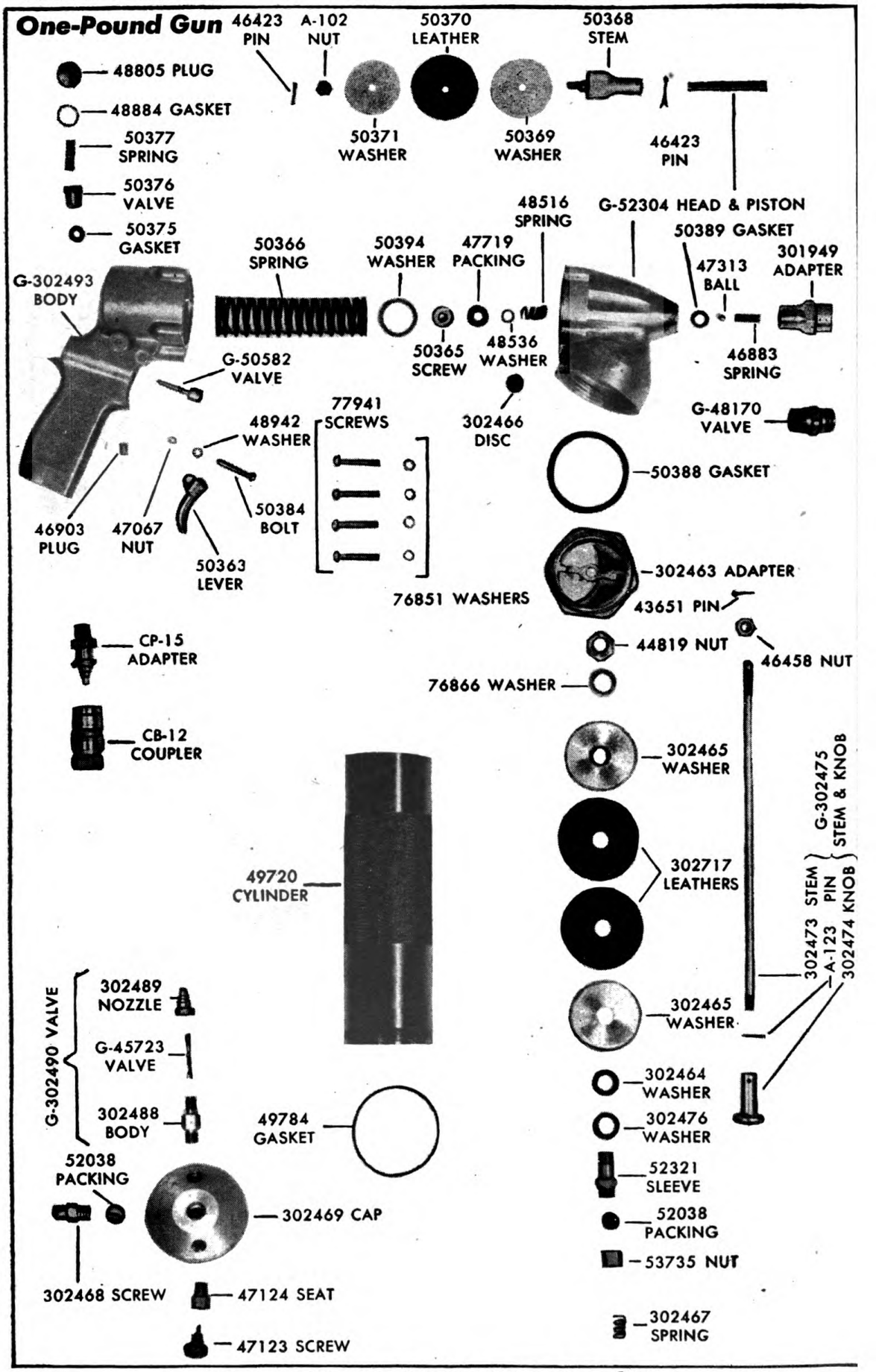
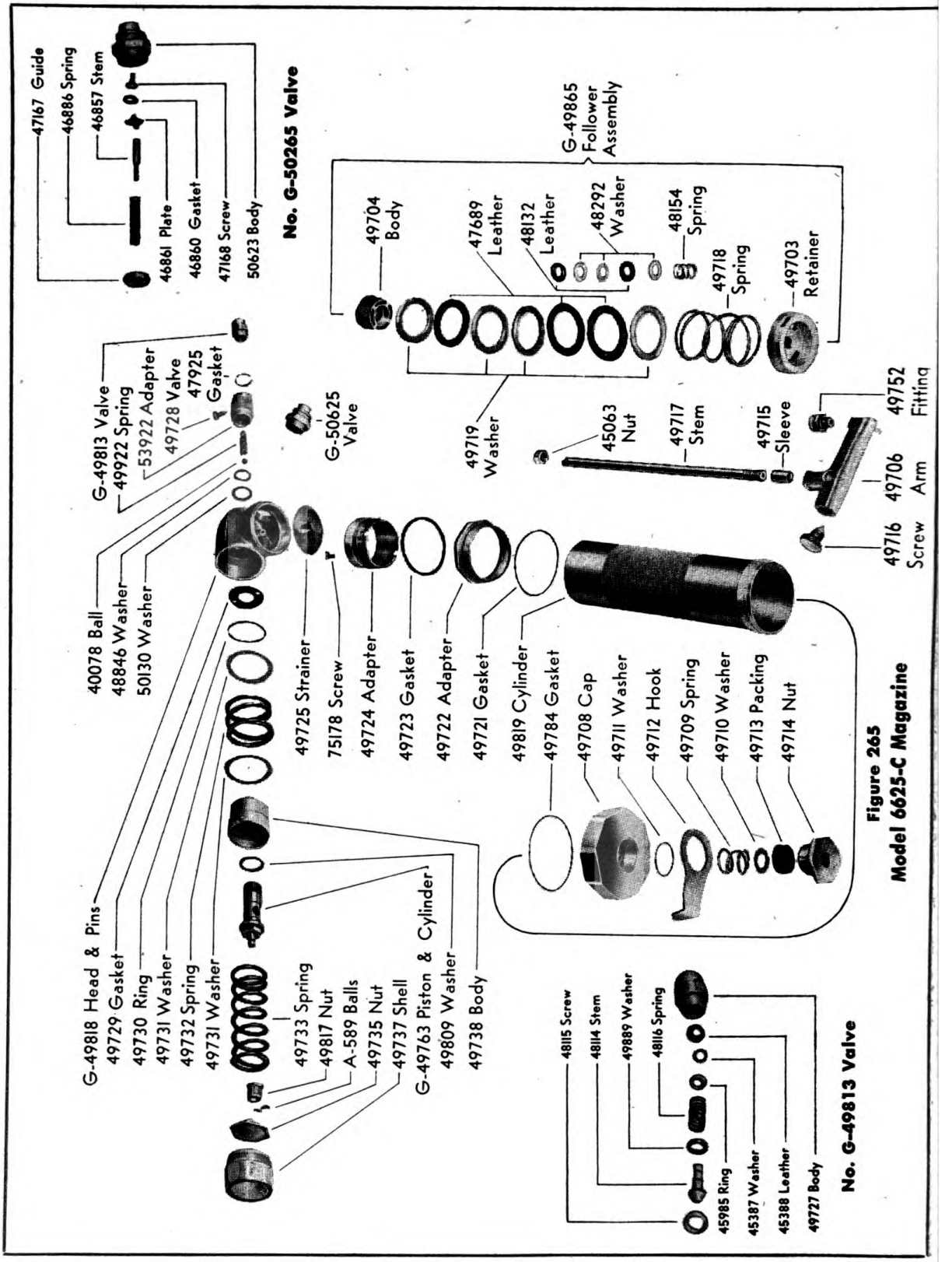


Figure 264 Model 6060 One-Pound Gun

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Magazine for One-Pound Gun



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Air Motor for One-Pound Gun; Oil Gun

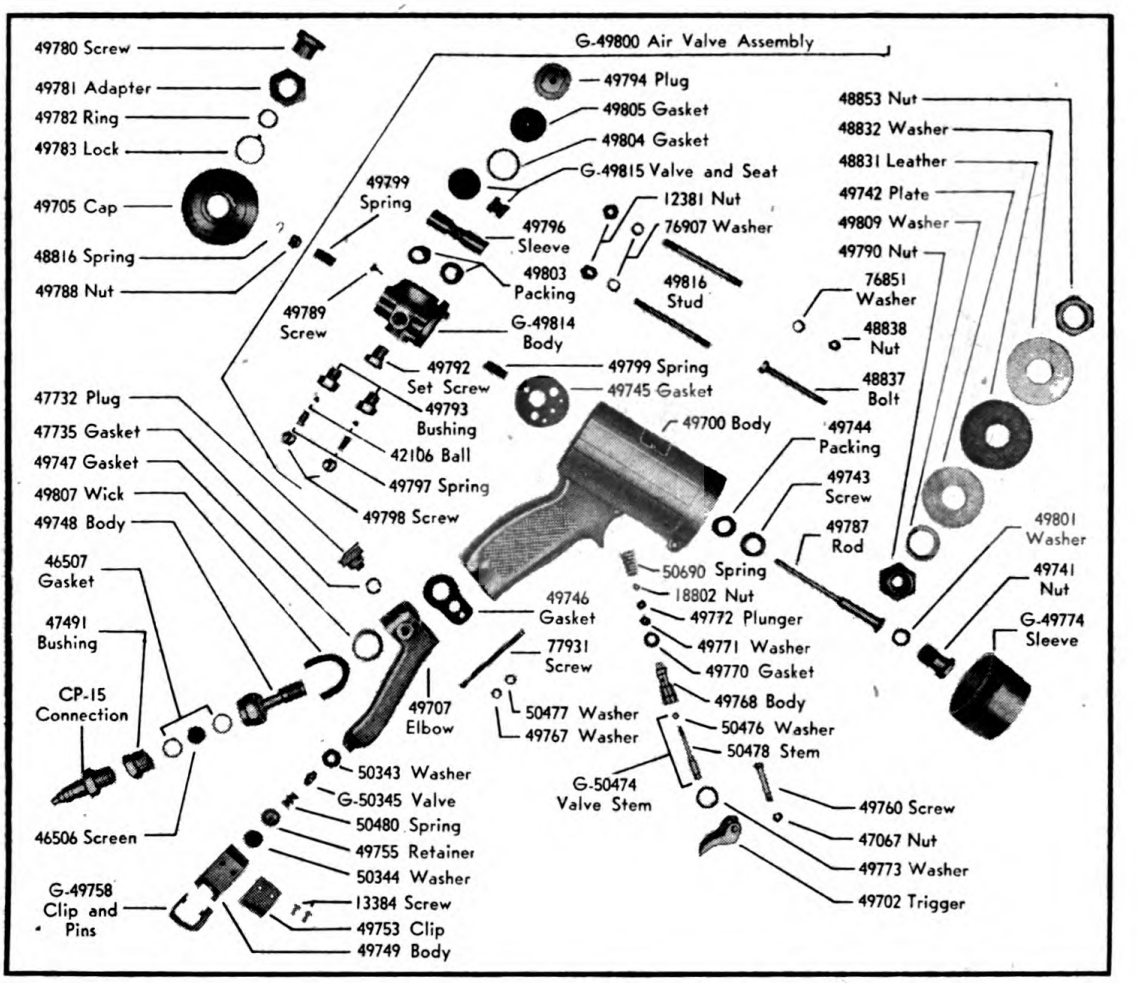


Figure 266

Model 6620 Air Motor

NOTE: The 6620 Air Motor and 6625-C Magazine were supplied only with units bearing serial numbers lower than 739762. The 6060 Gun (see page 125) was furnished with units having serial number 739762 and higher.

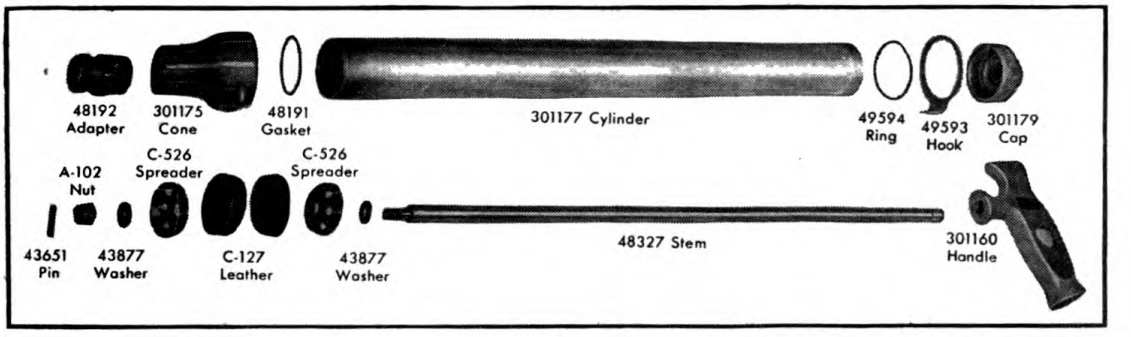


Figure 267

Model 6270 Oil Gun

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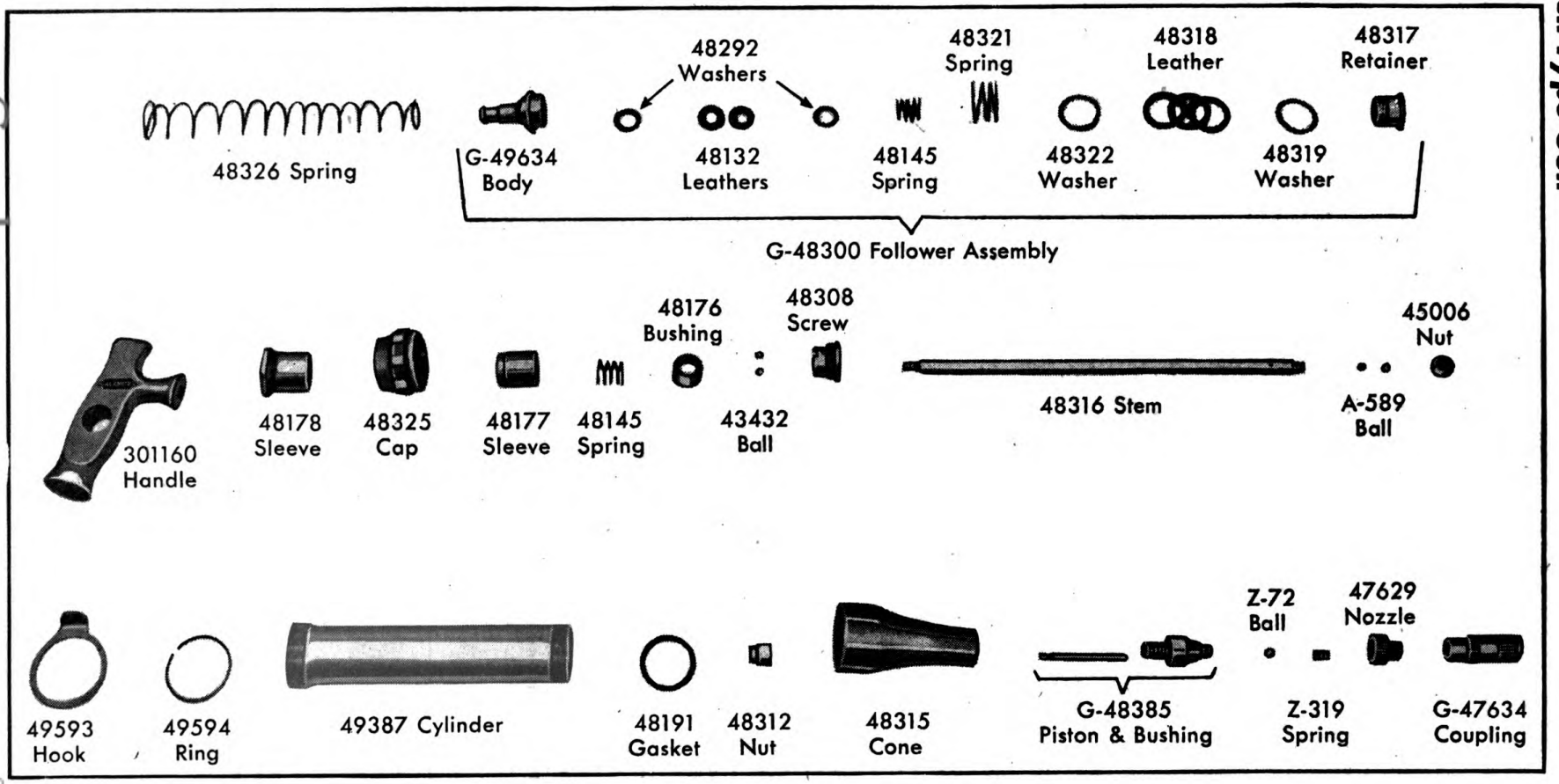


Figure 268
Model 6290-C Push Type Gun
(See page 140 for parts of No. G-47634 Coupling)

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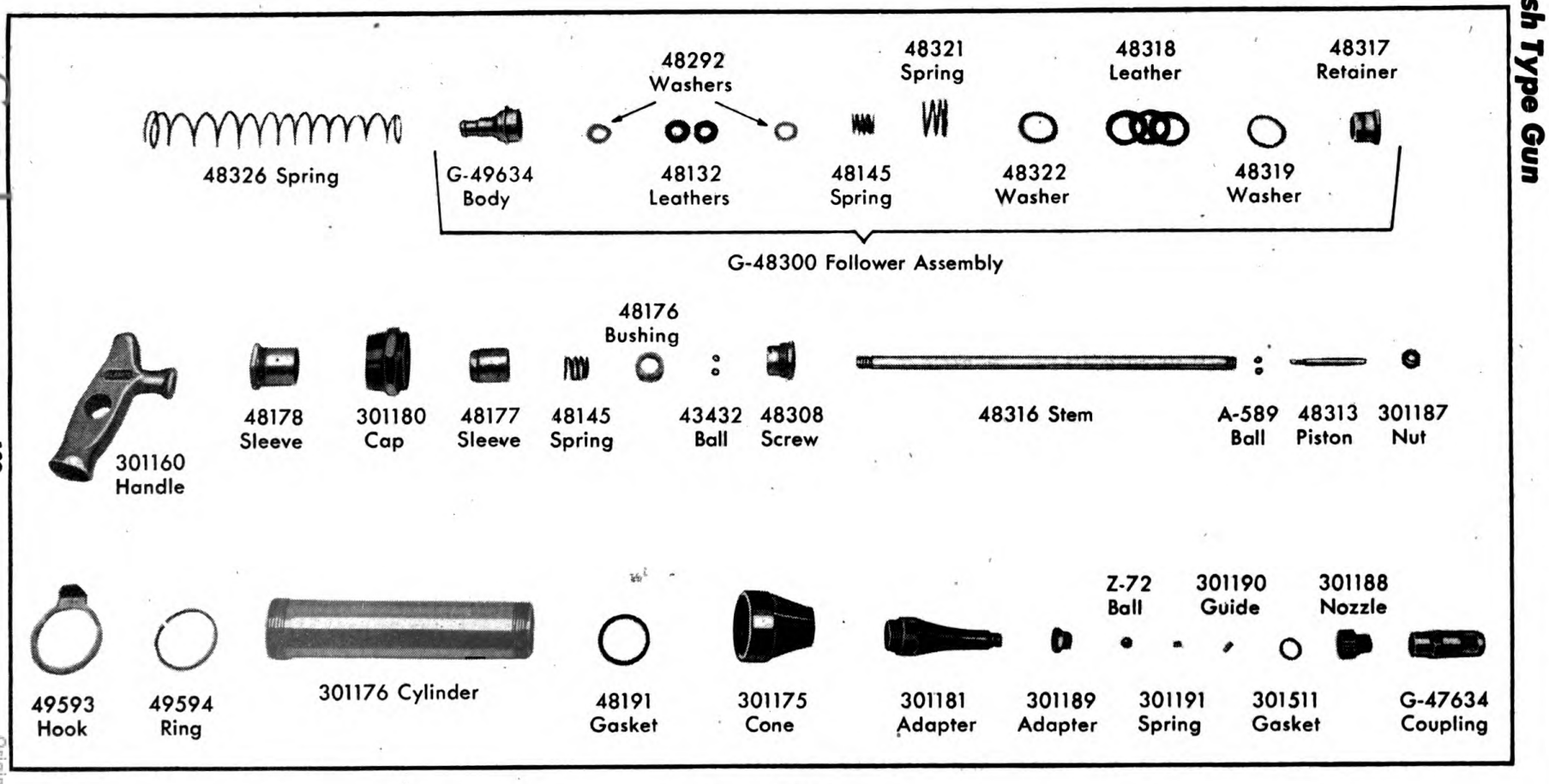
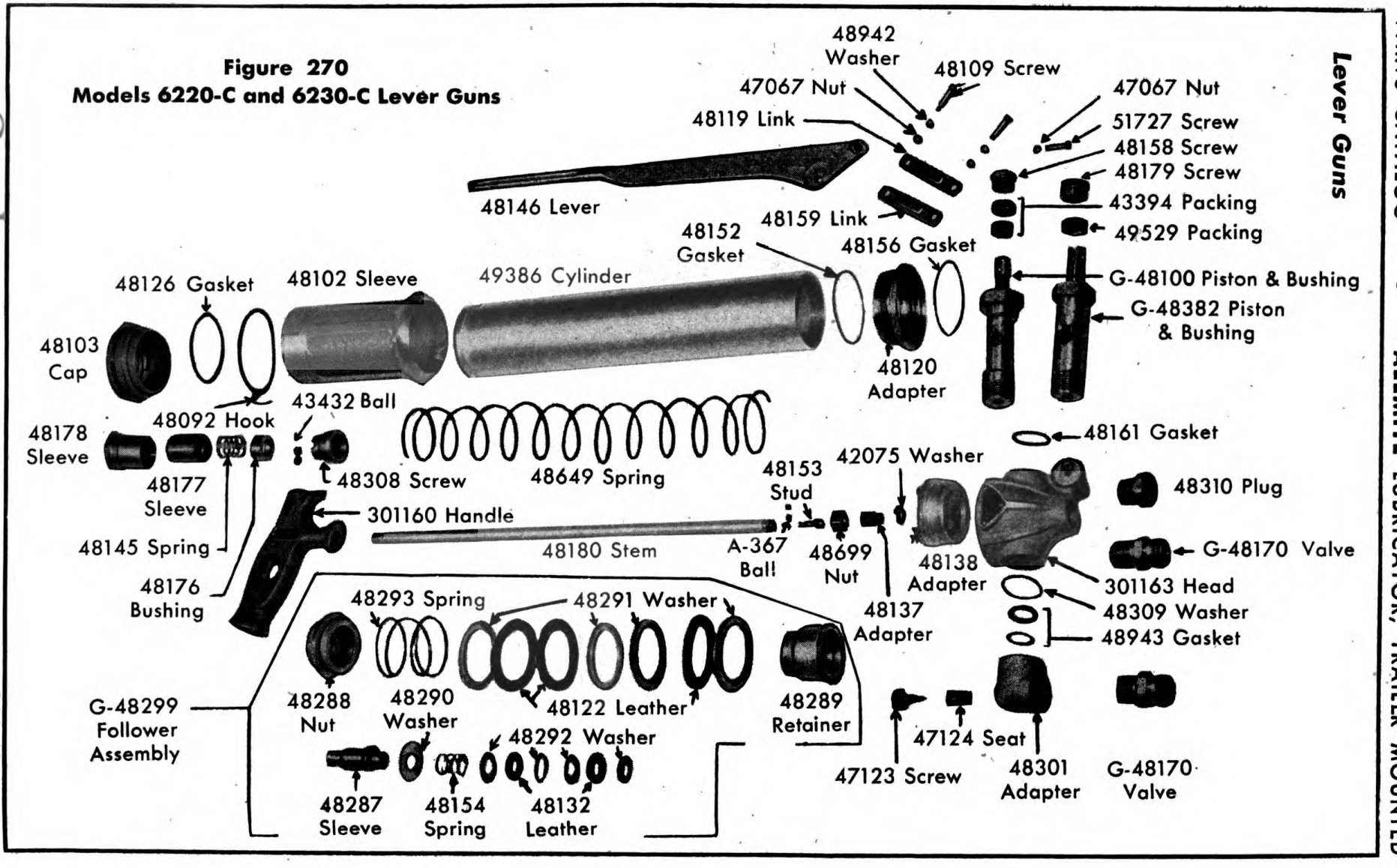


Figure 269
Model 6290-X Push Type Gun
(See page 140 for parts of No. G-47634 Coupling)

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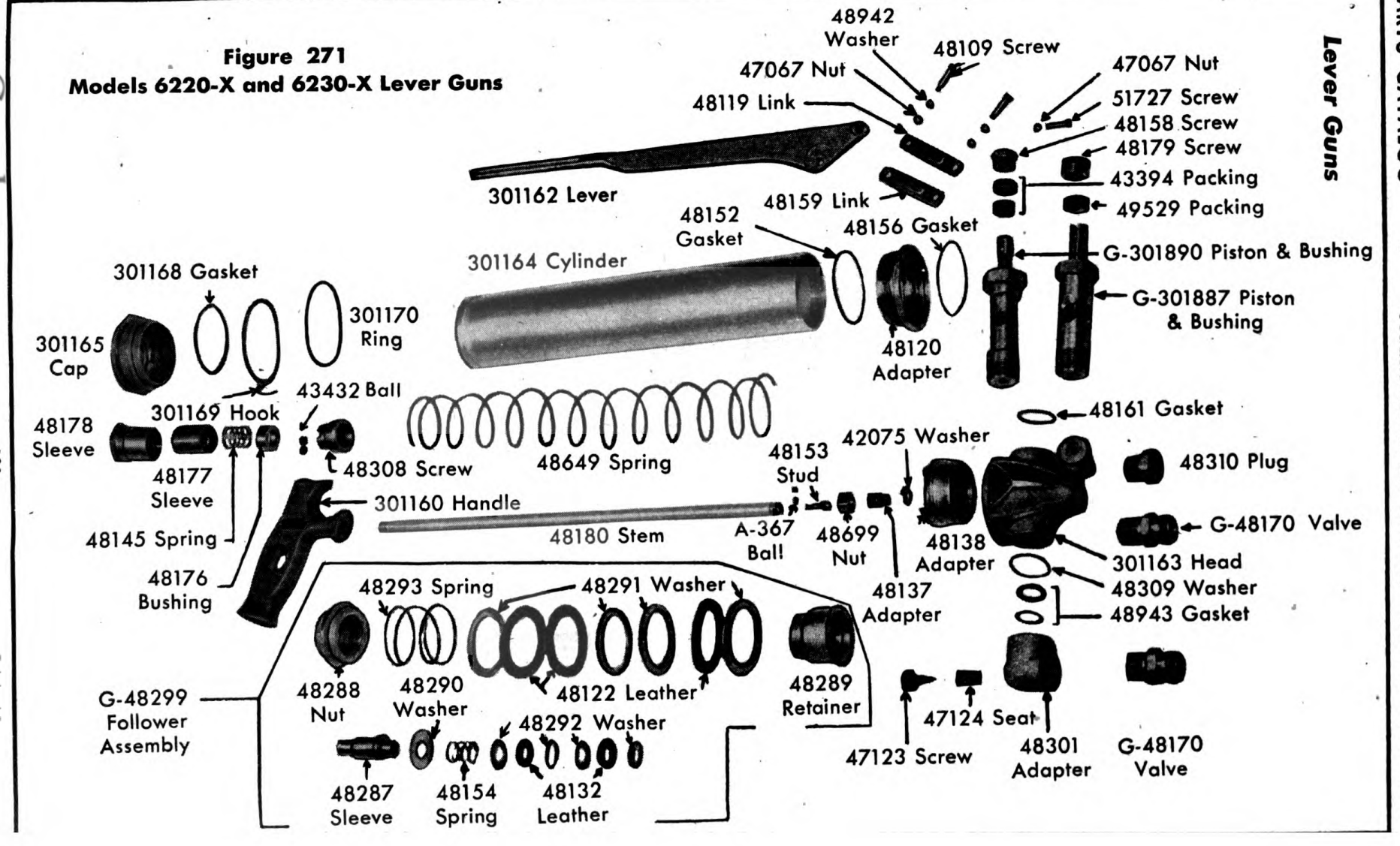
Figure 270
Models 6220-C and 6230-C Lever Guns



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Figure 271
Models 6220-X and 6230-X Lever Guns



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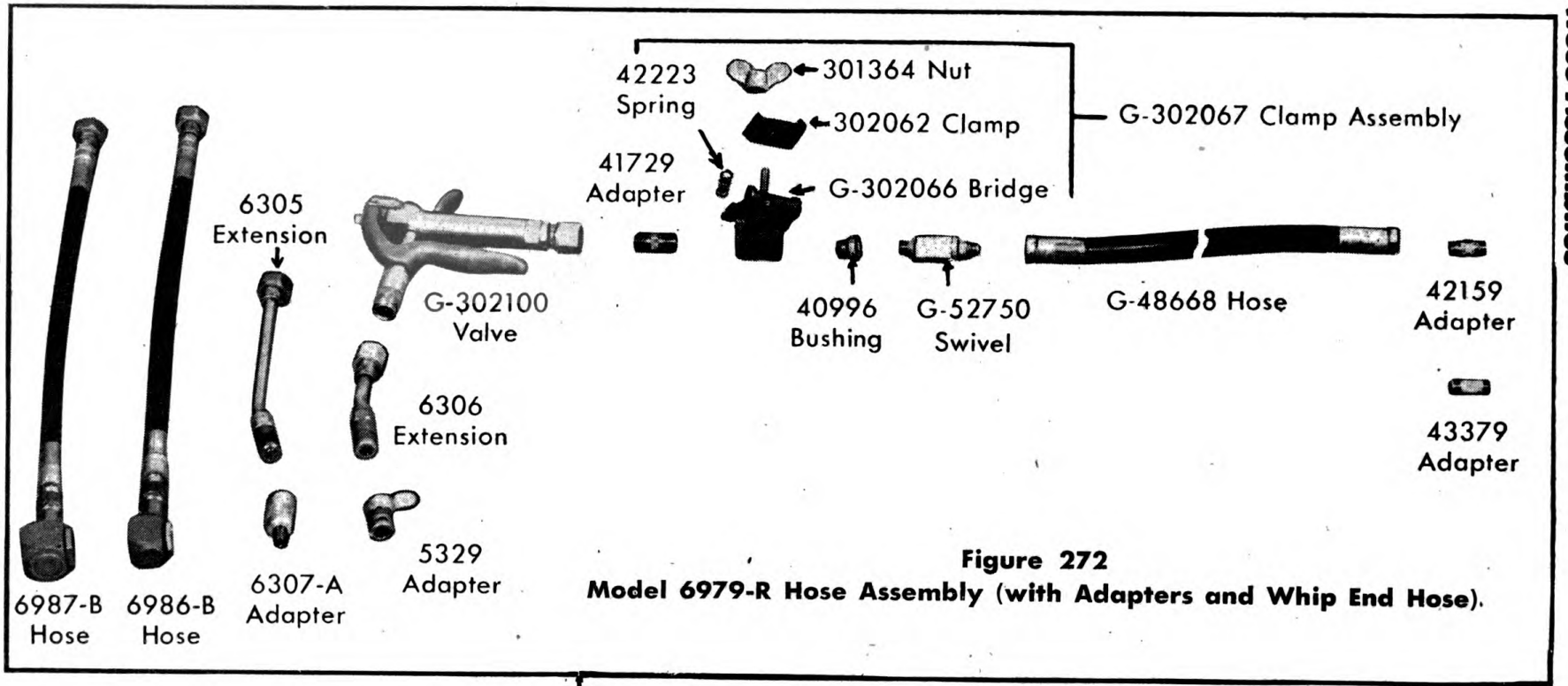


Figure 272
Model 6979-R Hose Assembly (with Adapters and Whip End Hose).

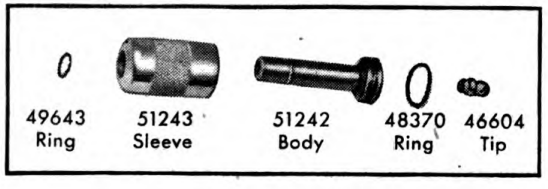


Figure 273
Model 6307-A Hydraulic to Push Type Adapter

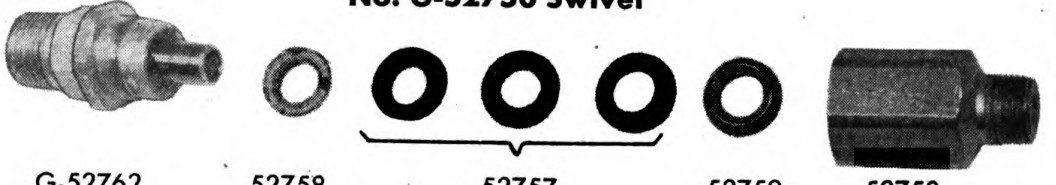


Figure 274
No. G-52750 Swivel

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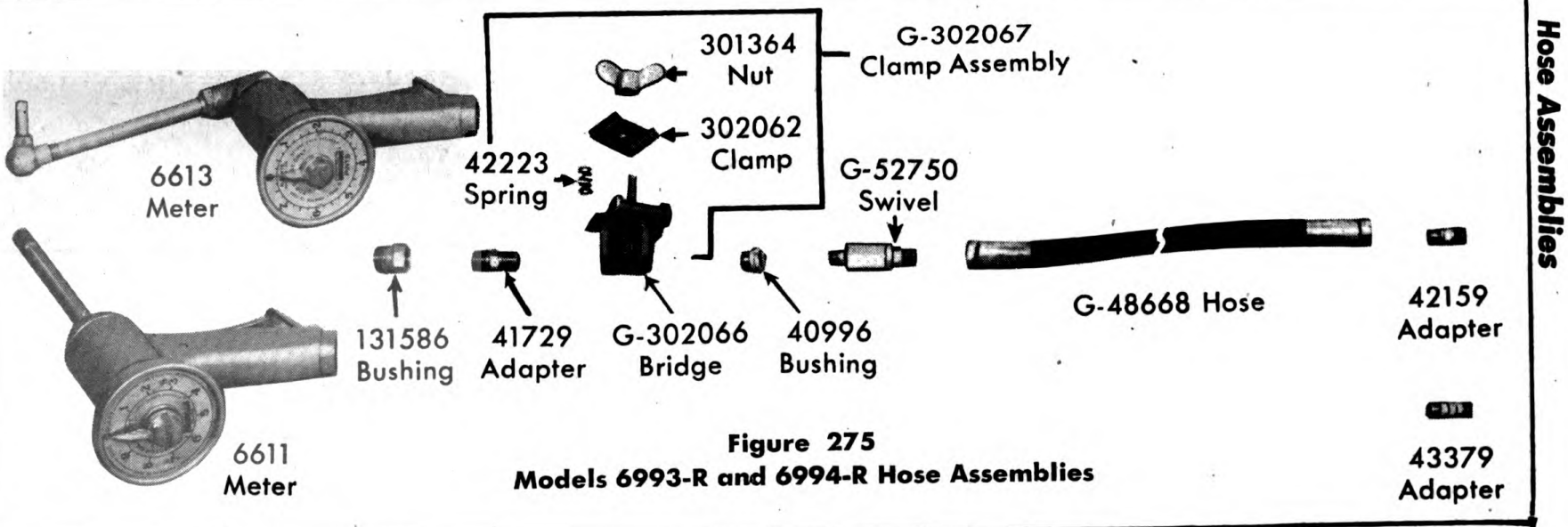


Figure 275
Models 6993-R and 6994-R Hose Assemblies

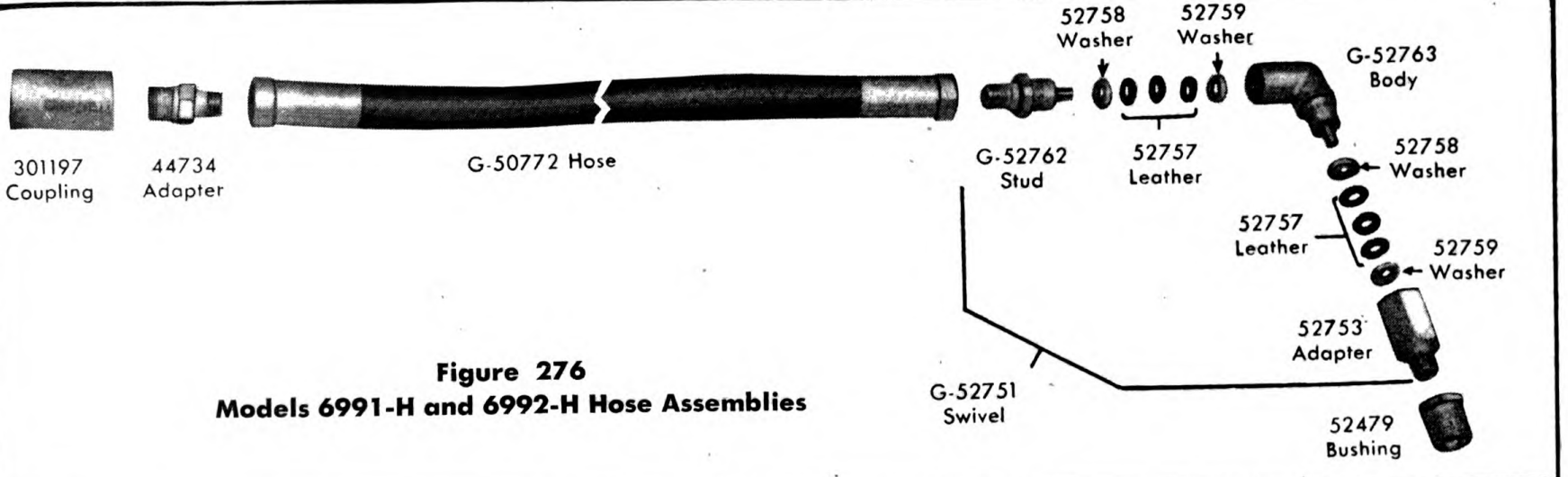


Figure 276
Models 6991-H and 6992-H Hose Assemblies

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Control Valve

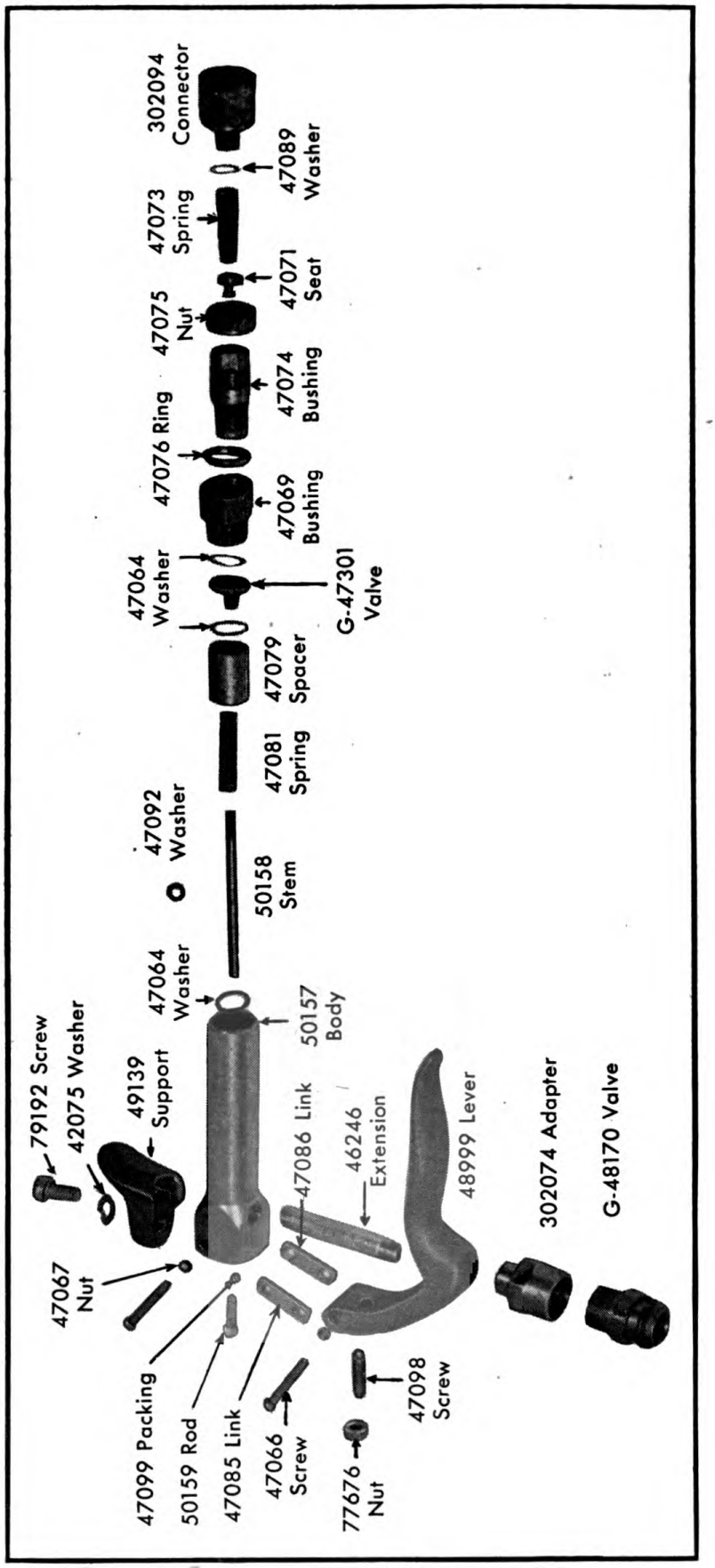


Figure 277
No. G-302100 Control Valve
(See Figure 278 for parts of No. G-48170 Valve)

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Figure 278
No. G-48170 Shut-Off-Valve
(used on G-302100 Control Valve, 6060 One-Pound Gun, and 6220 and 6230 Lever Guns)

Motor Oil Meter

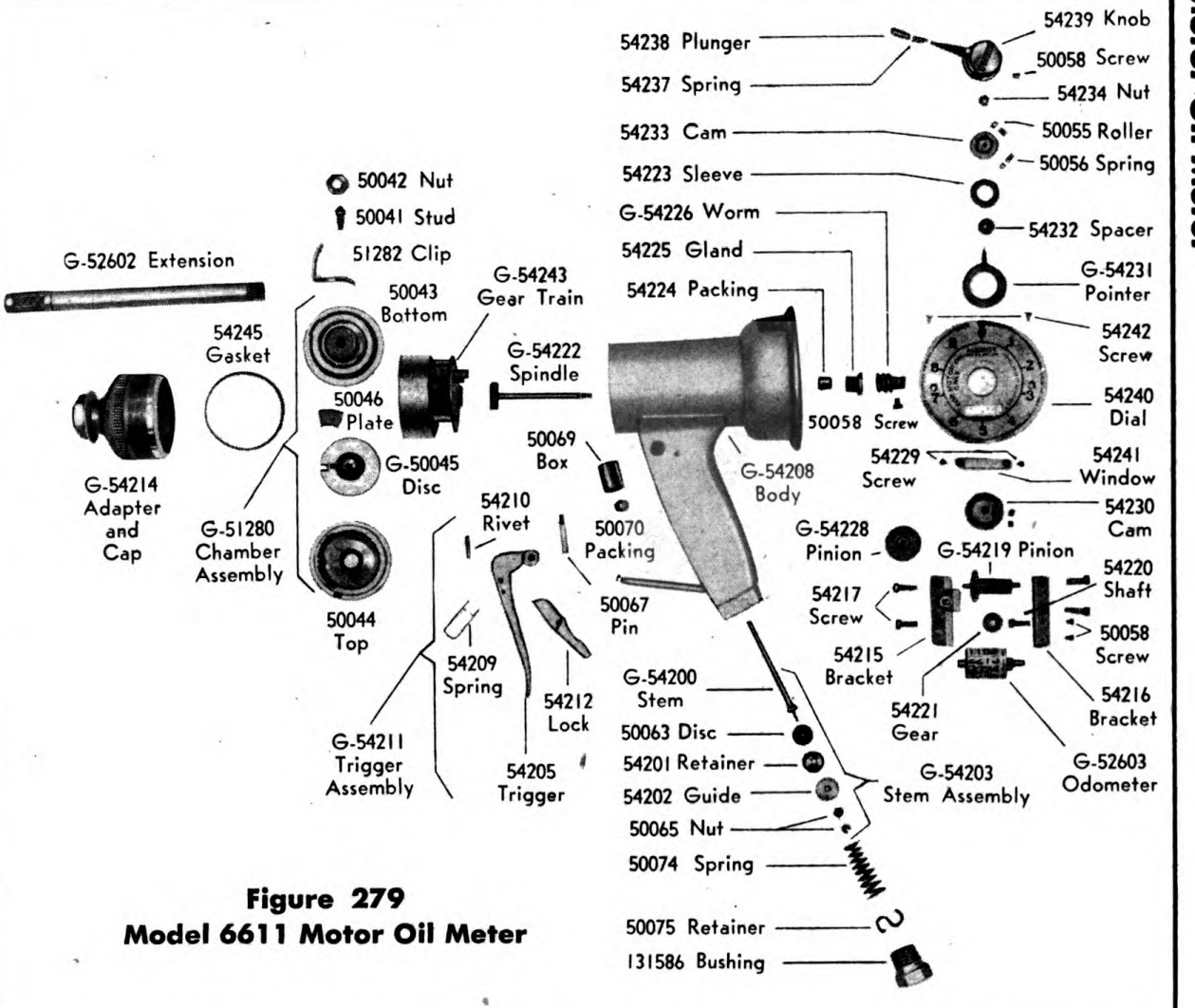


Figure 279
Model 6611 Motor Oil Meter

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Gear Lubricant Meter

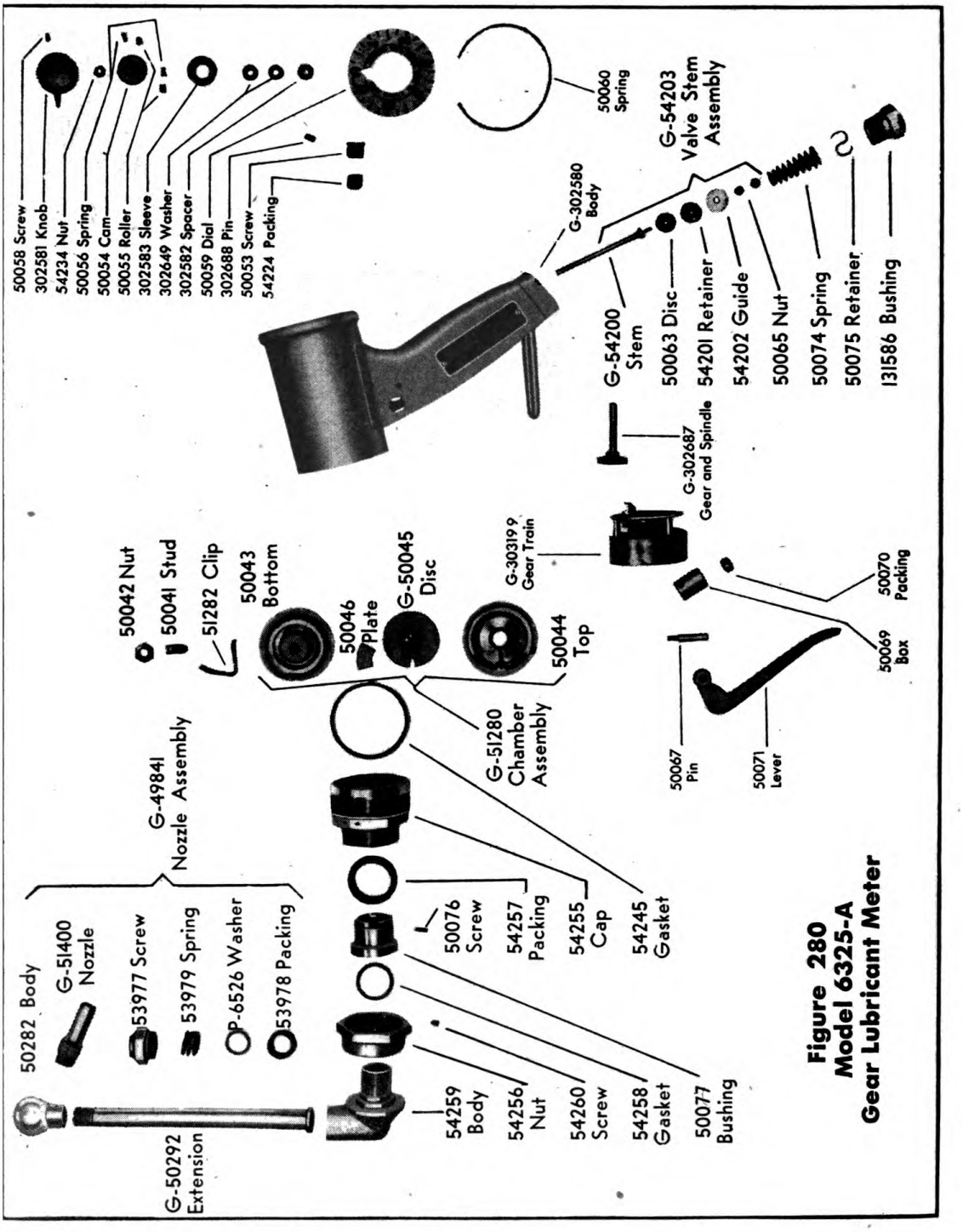


Figure 280
Model 6325-A
Gear Lubricant Meter

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Gear Lubricant Meter

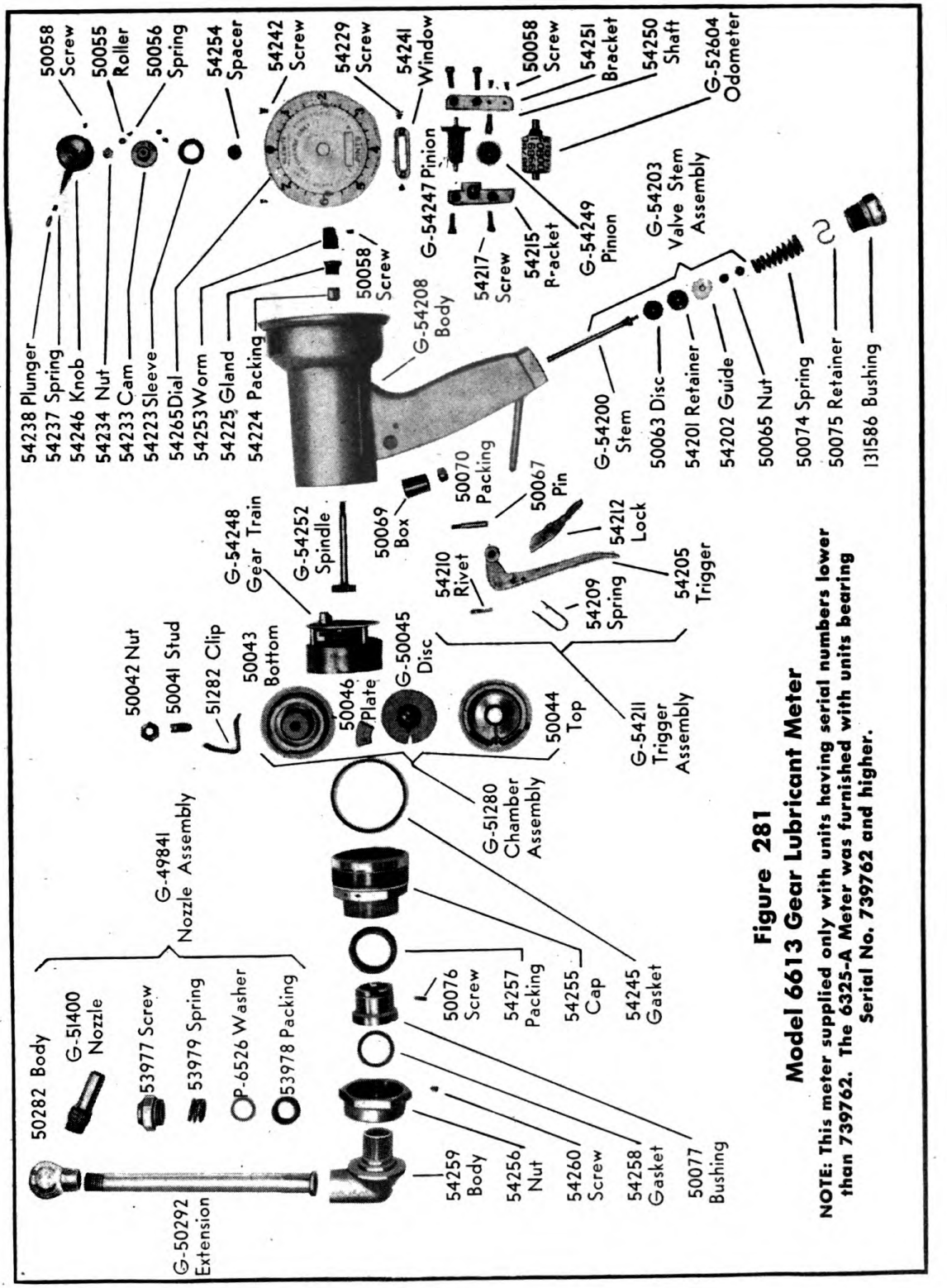


Figure 281

Model 6613 Gear Lubricant Meter

NOTE: This meter supplied only with units having serial numbers lower than 739762. The 6325-A Meter was furnished with units bearing Serial No. 739762 and higher.

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Reel

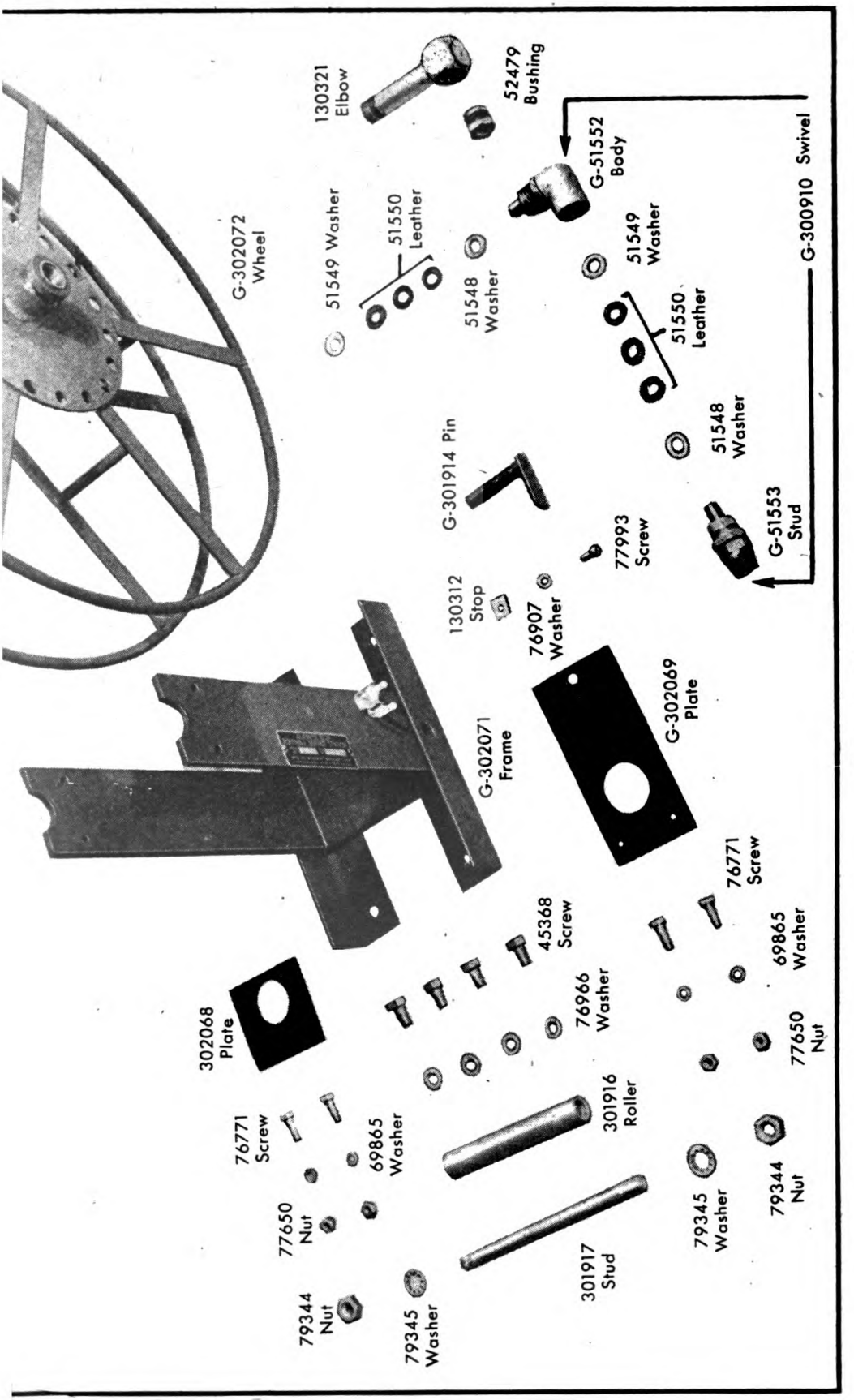


Figure 282
No. G-302080 Hose Reel

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Miscellaneous Parts

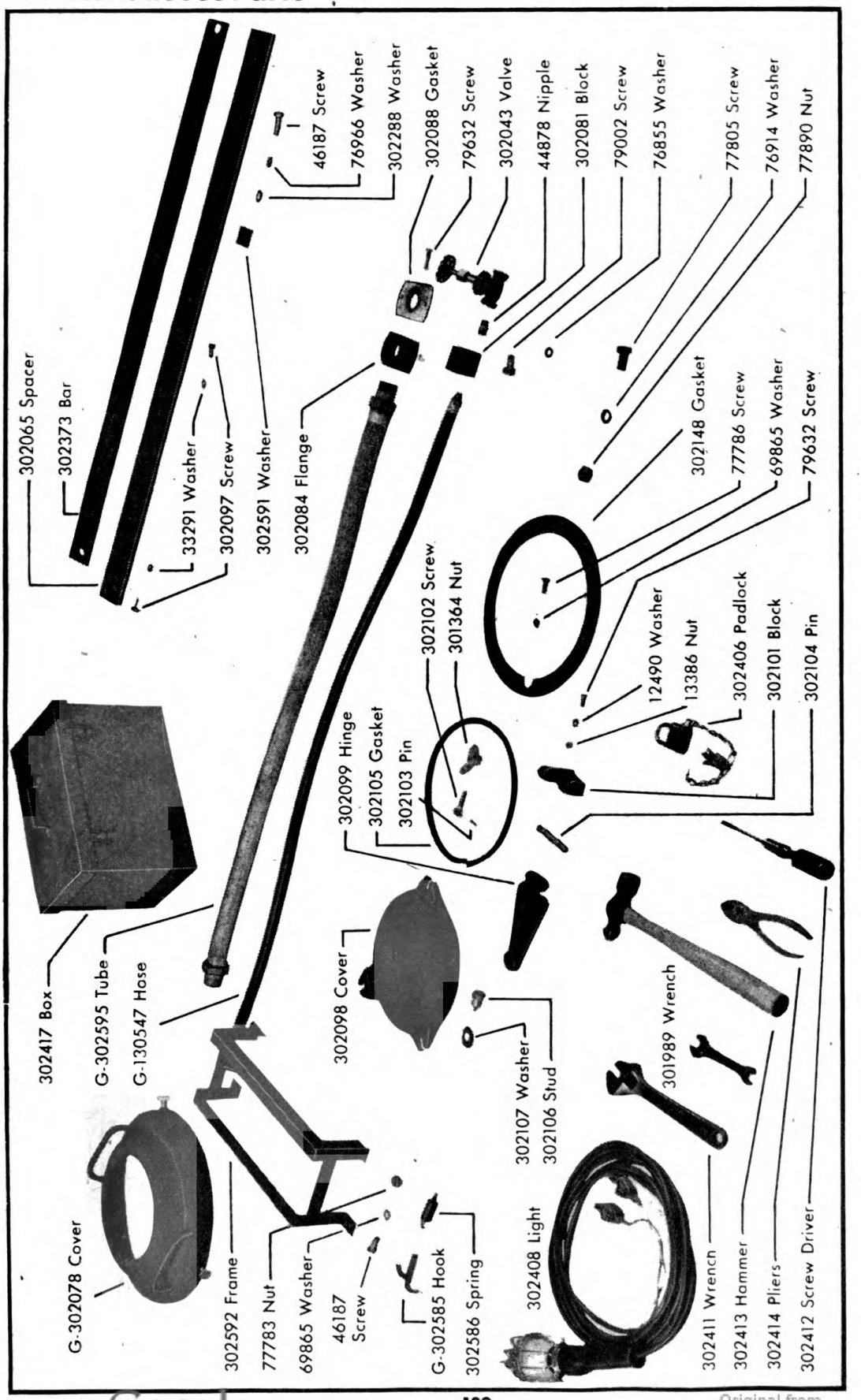


Figure 283
Miscellaneous Parts and Accessories

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Nozzles

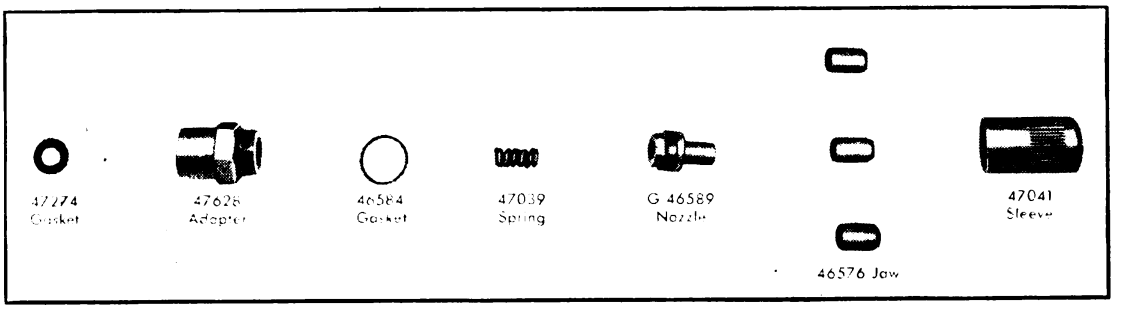


Figure 284
No. G-47634 Hydraulic Coupling
(used on 6290 Gun)

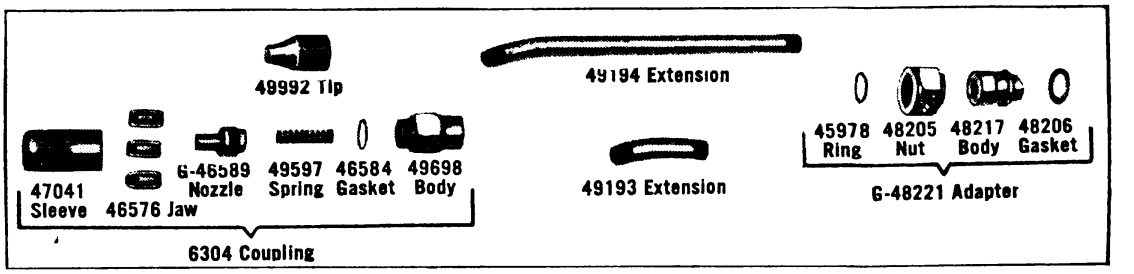


Figure 285
Models 6304, 6305, 6306 and 6313 Extensions and Nozzles

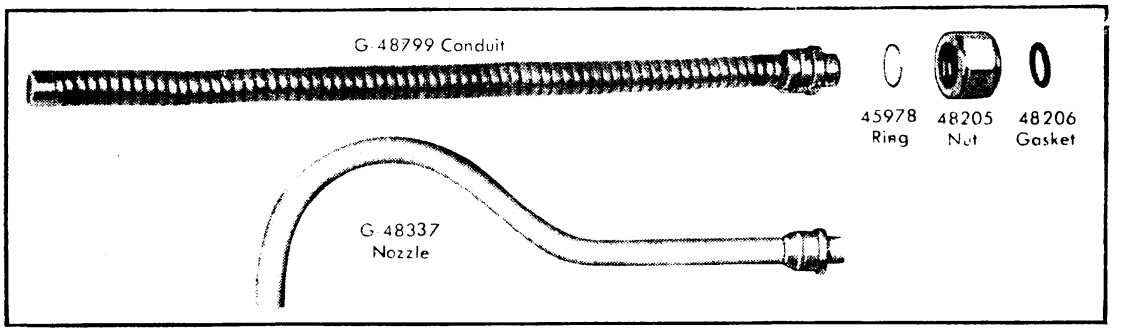


Figure 286
Models 6316 and 6318 Nozzles

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Pin Type Adapters

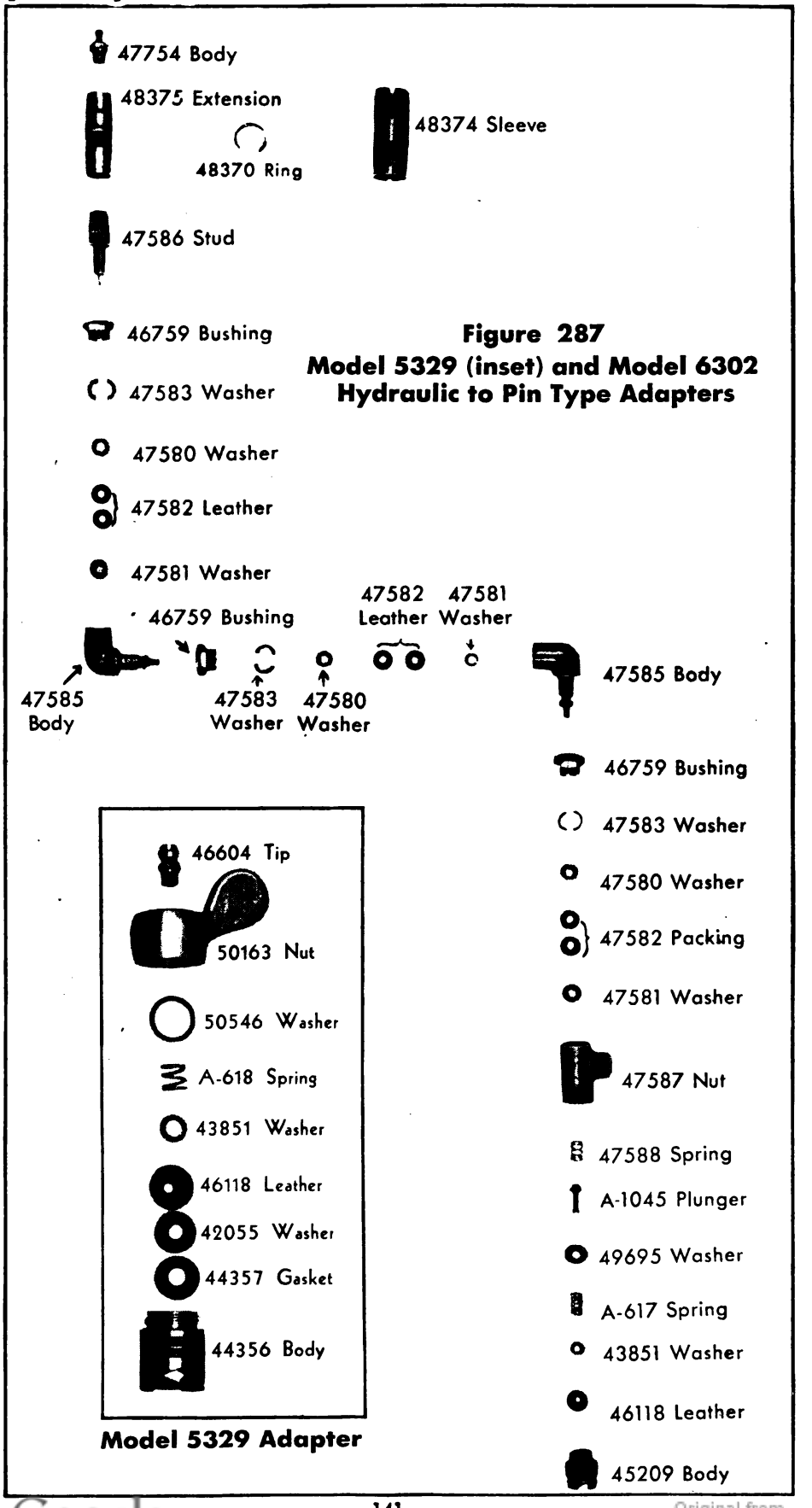


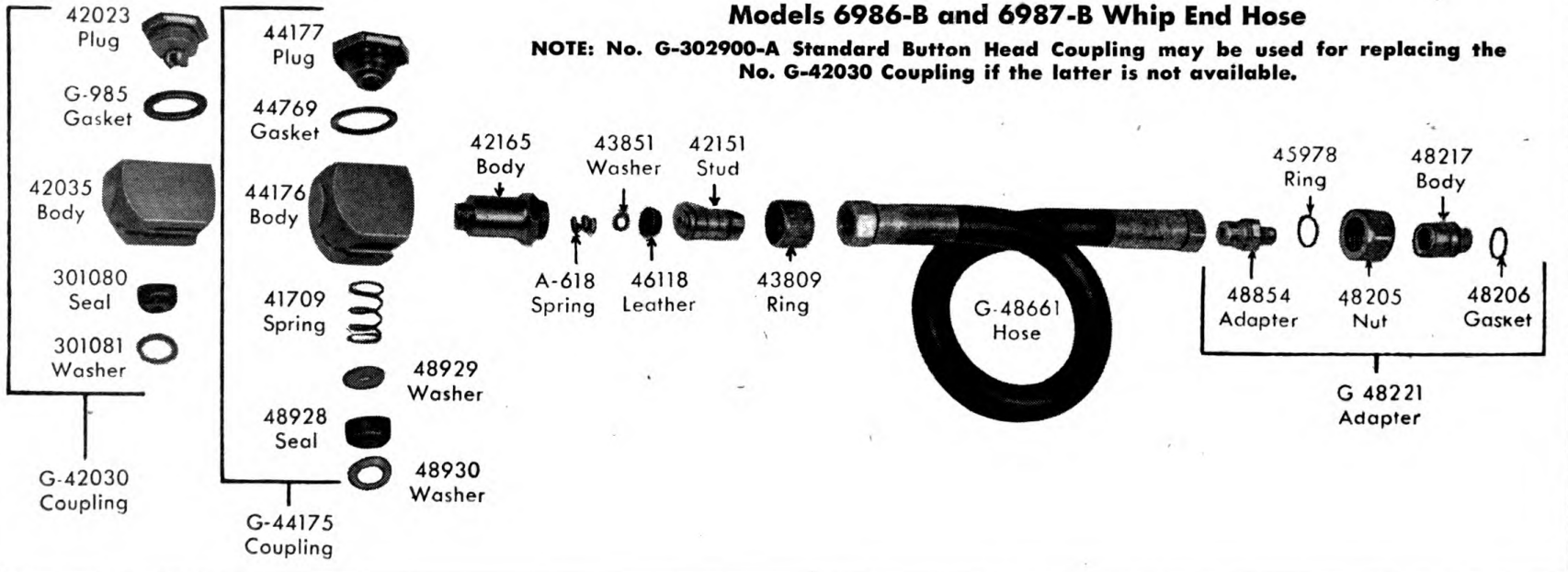
Figure 287
Model 5329 (inset) and Model 6302 Hydraulic to Pin Type Adapters

Model 5329 Adapter

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Figure 288
Models 6986-B and 6987-B Whip End Hose

NOTE: No. G-302900-A Standard Button Head Coupling may be used for replacing the No. G-42030 Coupling if the latter is not available.



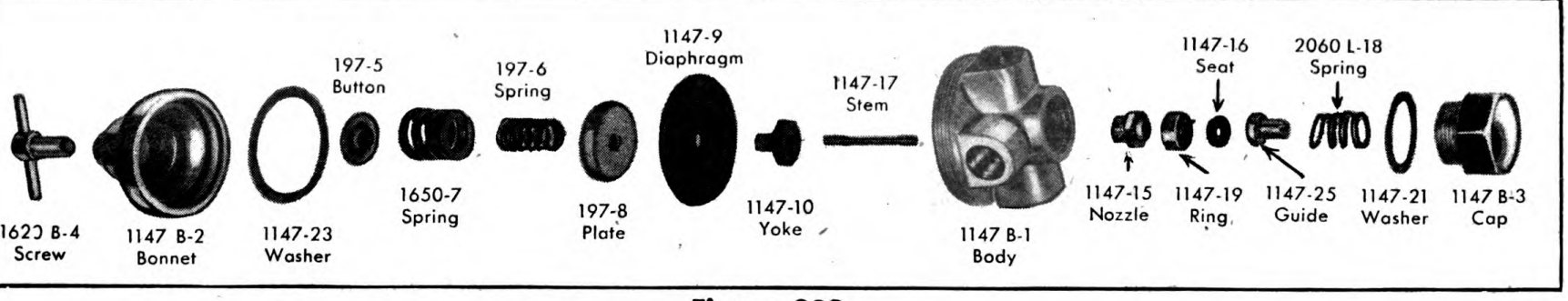


Figure 289
No. G-300028 Air Regulator

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Air Line Parts

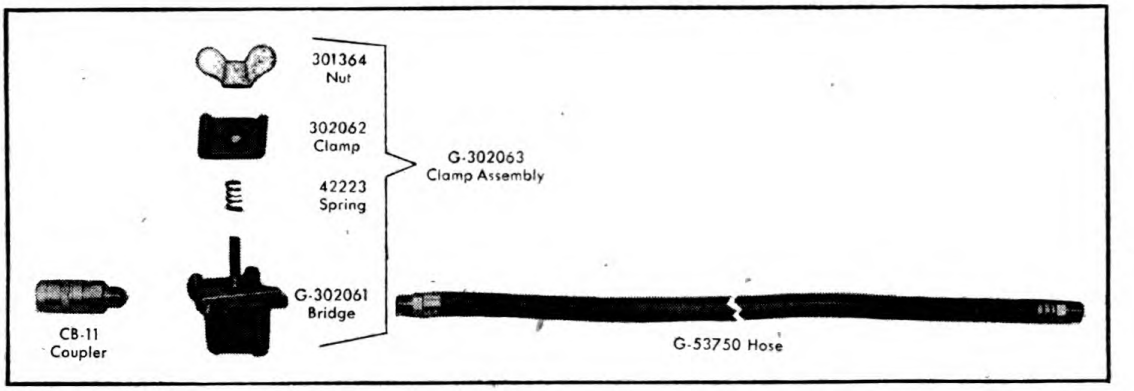


Figure 290
Air Service Hose Assembly

Note: For illustration and parts list of Air Chuck Gauge see page 176.

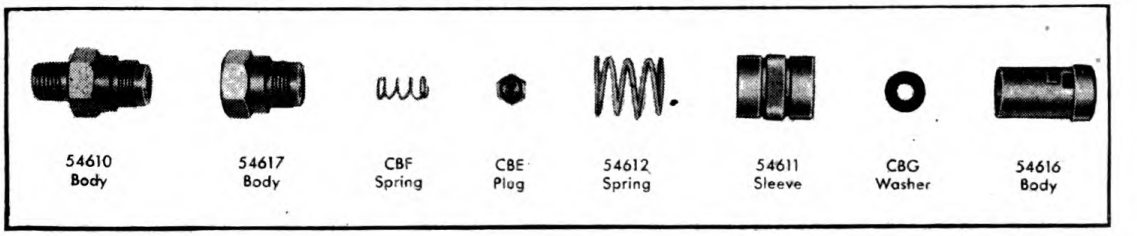


Figure 291
Nos. CB-11 and CB-12 Air Couplers

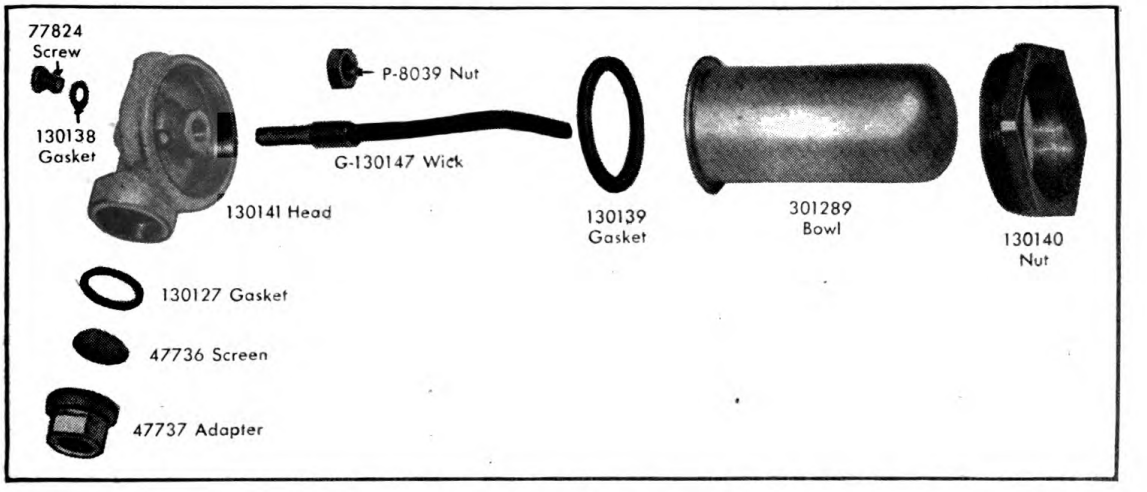


Figure 292
G-54946 Reservoir Oiler

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Stand

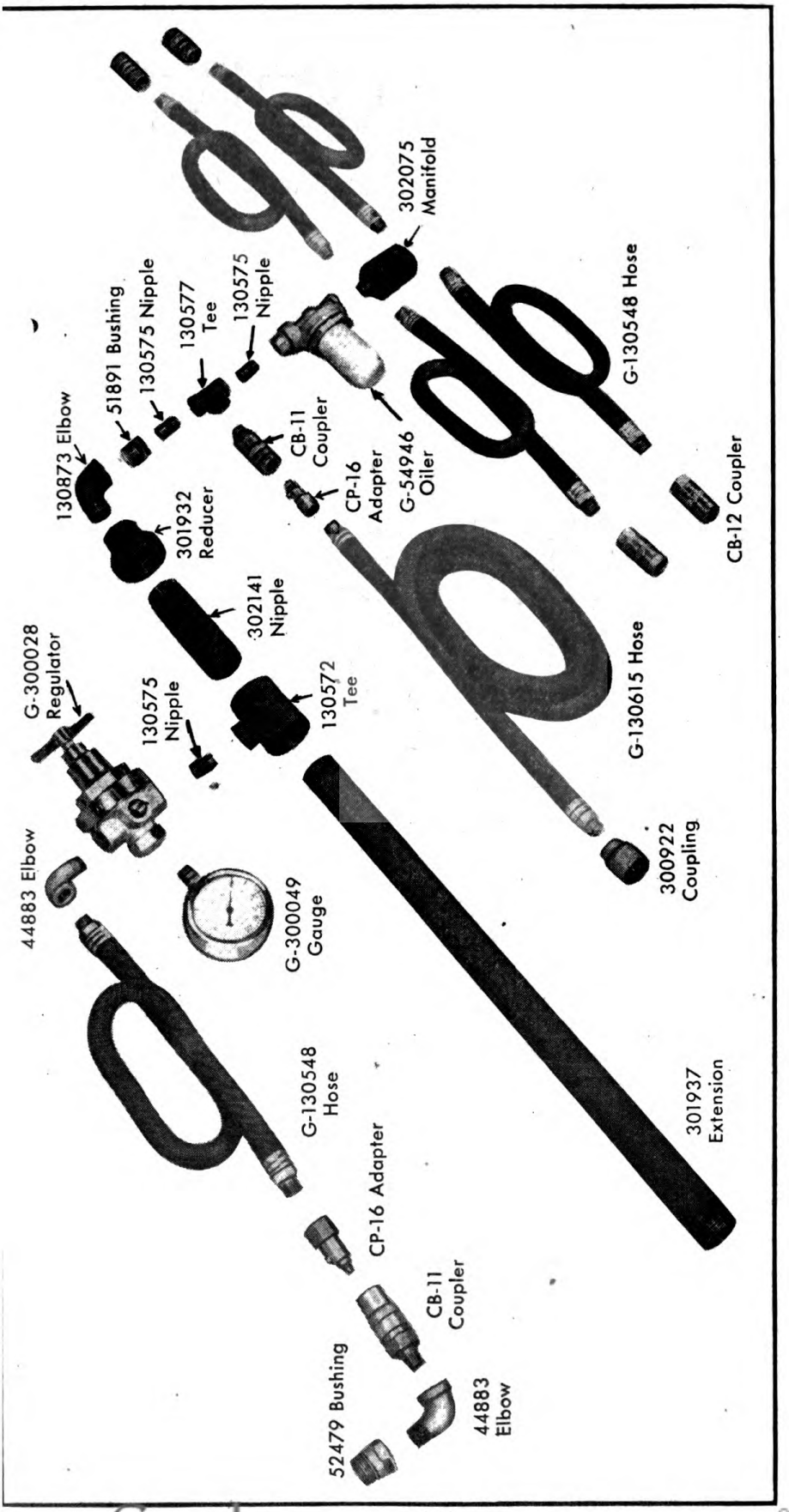


Figure 293
No. G-302064 Air Line Stand
(Replaced by No. G-302746 on Newer Units)

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Air Stand

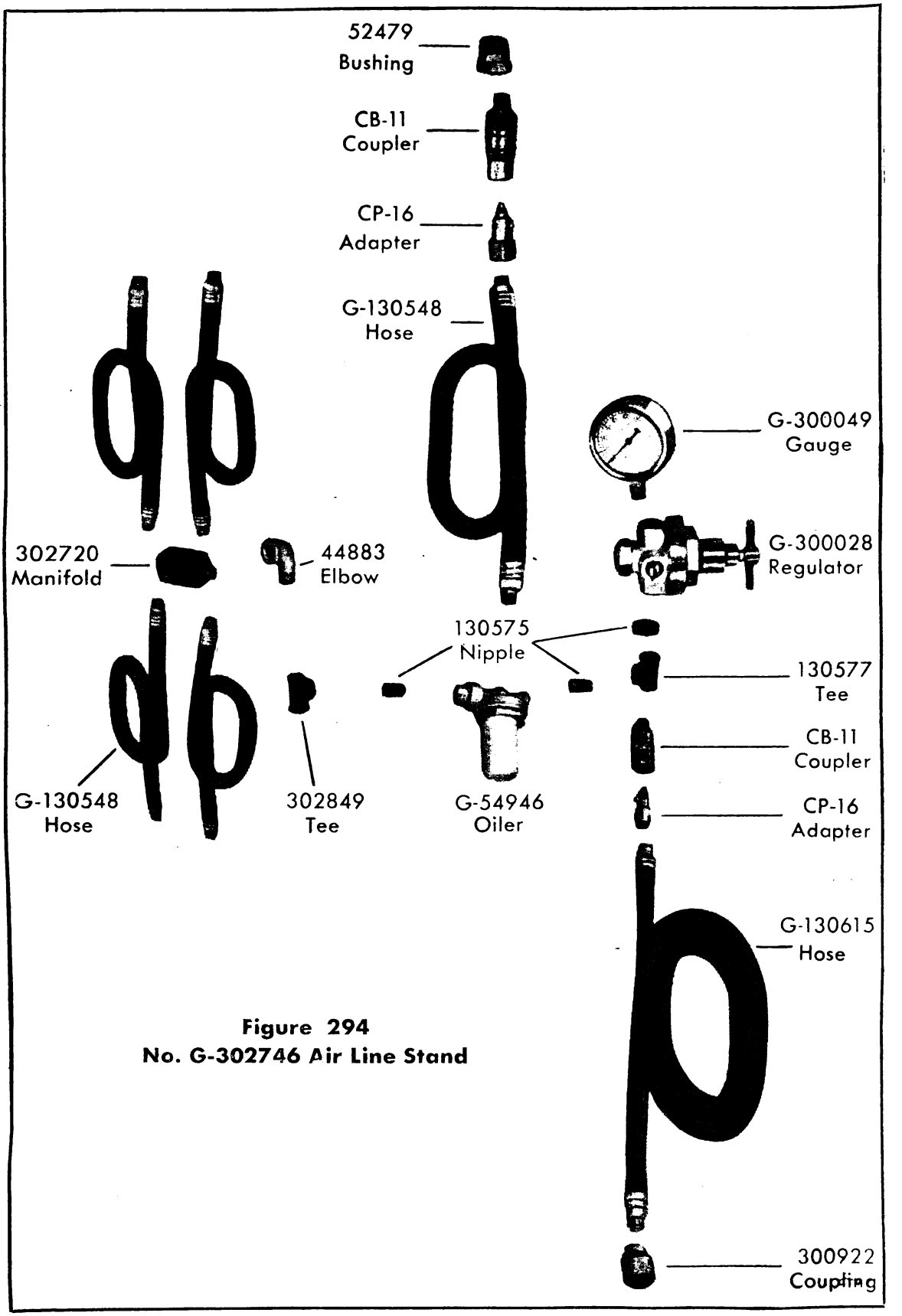


Figure 294
No. G-302746 Air Line Stand

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Wheel Bearing Lubricator

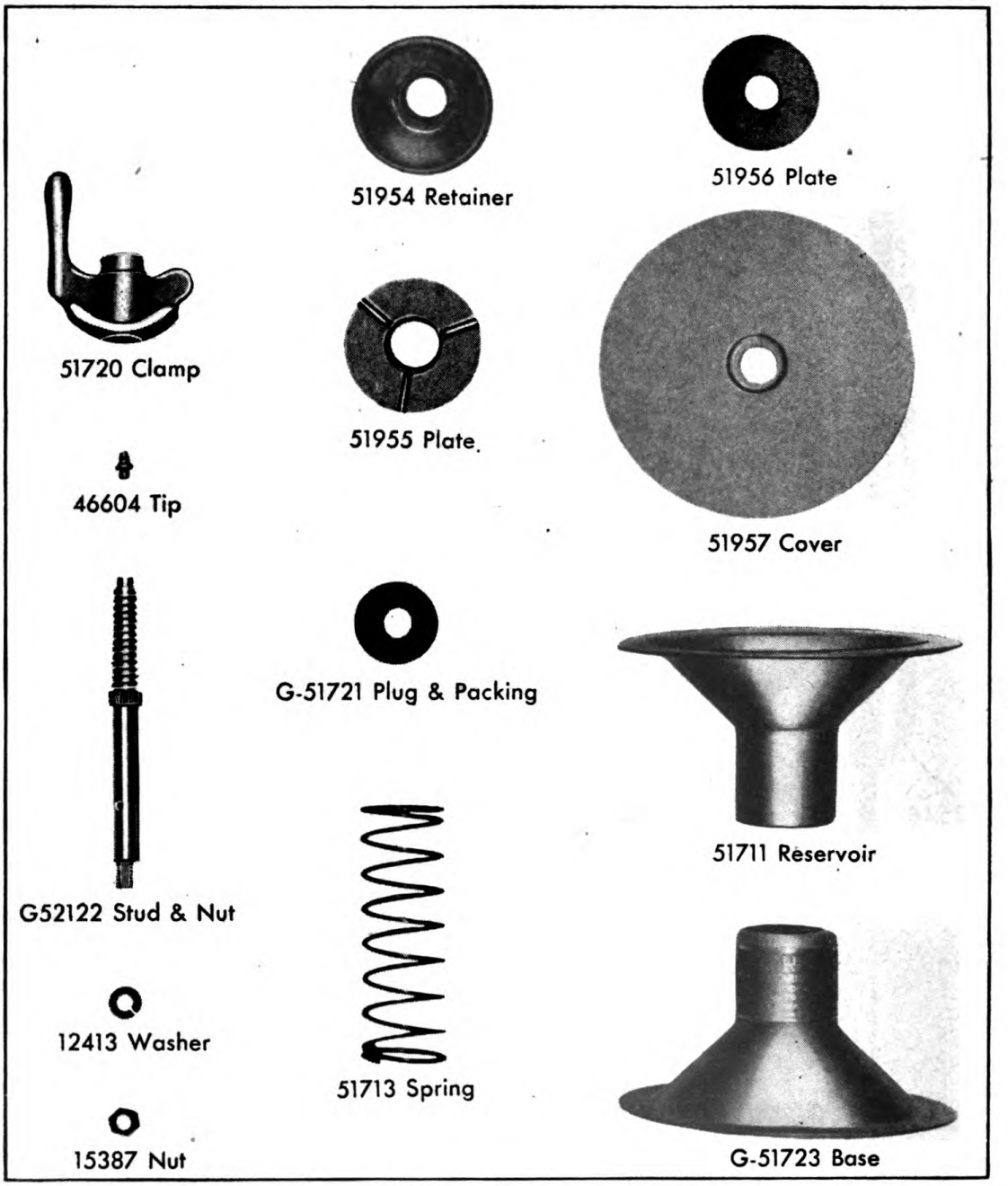


Figure 295
Model 6685 Wheel Bearing Lubricator

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Fluid-Bal

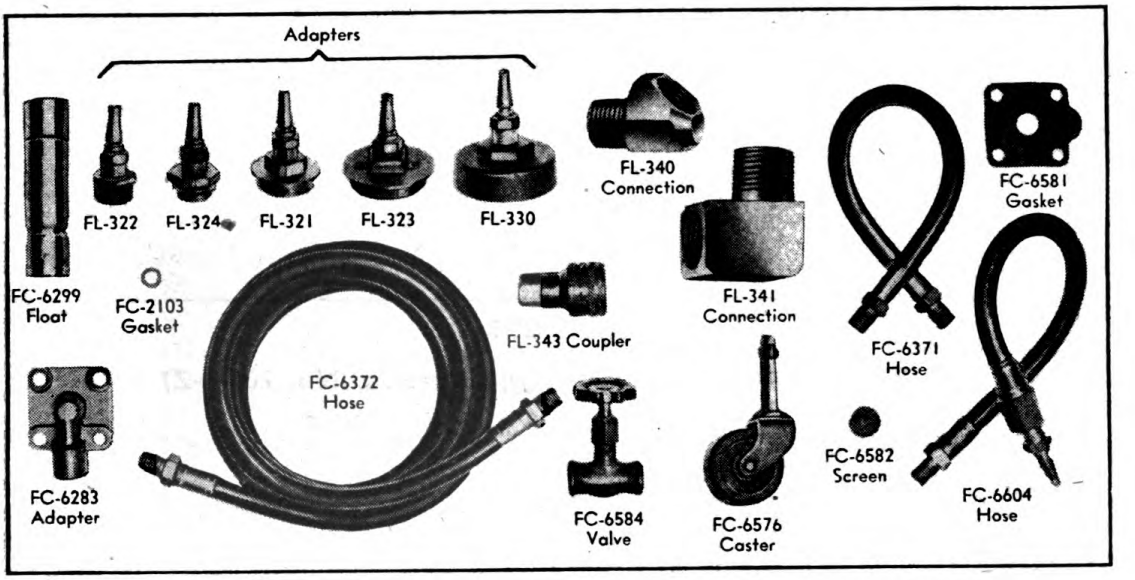


Figure 296
No. FL-308 Fluid-Bal Parts

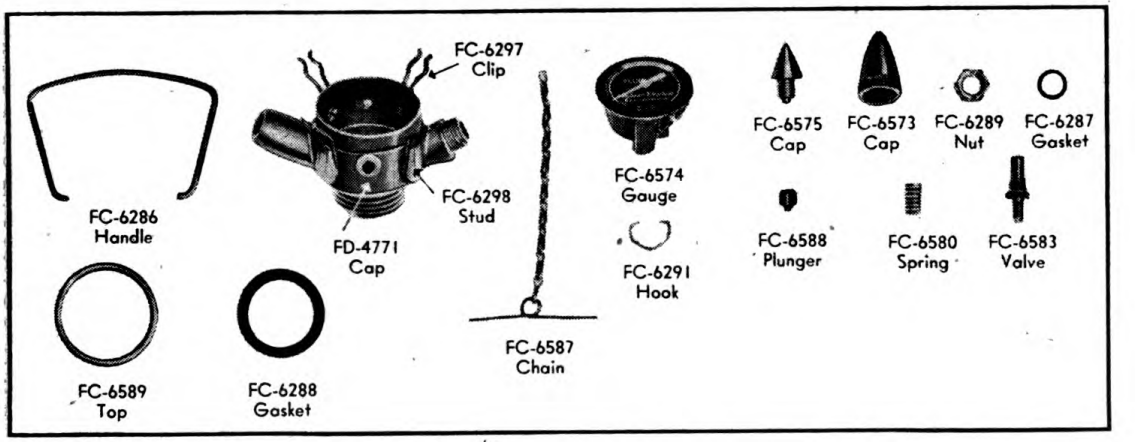


Figure 297
No. FC-6585 Filler Cap

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Air Chuck Gauge

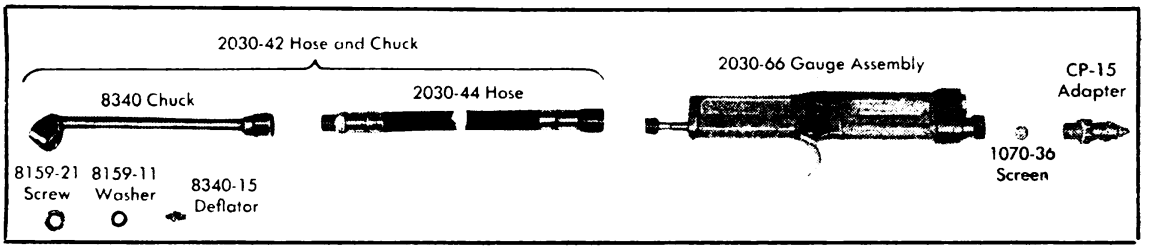


Figure 298

No. G-302058 Air Chuck Gauge (Schrader No. 2030-Z)

Part No.	Part Name	Quantity Used	Weight	Price Each
CP-15	Adapter, Air Line	1	2=3 oz.	$0.25
*1070-36	Screen, Air Inlet	1	50=1 oz.	.05
*2032-42	Hose and Chuck	1	11 oz.	2.10
*2030-44	Hose	1	6 oz.	1.20
*8159-11	Washer, Air Chuck	2	25=1 oz.	.03
*8159-21	Screw, Washer Retaining	2	15=1 oz.	.05
*8340	Chuck Assembly	1	5 oz.	1.16
*8340-15	Deflator	1	10=1 oz.	.12
*2030-66	Gauge Assembly	1	1¼ lbs.	5.40

*Parts supplied by A. Schrader's Son
470 Vanderbilt Ave. Brooklyn, N. Y.

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MODEL No. 2430
LUBRICATOR, TRAILER MOUNTED
NUMERICAL PARTS LIST

Part No.	Description	Page	Qty. Used	Weight	Price Each
*AEH	Engine, Gasoline (Alemite No. G-302038-A)	104	1	136 lbs.	$113.00
CBE	Plug, Valve	143	11	10 = 1 oz.	.05
CBF	Spring, Valve	143	11	60 = 1 oz.	.02
CBG	Washer, Rubber	143	11	50 = 1 oz.	.05
*XI-1	Pin, Cotter 1/16" x 1/2"	106	4	60 = 1 oz.	.03
†VD-2	Pilot, Unloader	116	1	1½ lbs.	12.00
CW-3	Gasket, Air Valve Body	124	1	50 = 1 oz.	.05
*PE-3	Lock Washer, 1/4"	105	16	30 = 1 oz.	.03
*XK-3	Plug, 3/8" Pipe	107	2	1 oz.	.12
CW-4-1	Body, Air Valve	124	1	2 = 1 oz.	.80
*PE-4	Lock Washer, 5/16"	107	8	20 = 1 oz.	.03
*XD-4	Screw, 1/4"-20 x 1/2" Hex. Hd.	105	13	6 = 1 oz.	.03
*XK-4	Plug, 1/2" Pipe	107	2	3 oz.	.12
*PE-5	Lock Washer, 3/8"	105	22	10 = 1 oz.	.03
*XD-5	Screw, 1/4"-20 x 5/8" Hex. Hd.	108	2	3 = 1 oz.	.04
CW-6	Button, Air Valve Thumb	124	1	2 = 1 oz.	.25
*SE-6	Screen, Flywheel	108	1	12 oz.	1.33
*XD-6	Screw, 1/4"-20 x 3/4" Hex. Hd.	110	2	3 = 1 oz.	.03
CW-7	Spring, Air Valve	124	1	40 = 1 oz.	.05
CW-8	Washer, Air Valve	124	1	60 = 1 oz.	.05
*AH-9	Lock, Valve Spring Retainer	105	2 pr.	6 = 1 oz.	.04 pr.
TZ-10	Gasket, Oil Container	124	1	5 = 1 oz.	.05
CB-11	Coupler, Air	143	2	2 = 7 oz.	.75
*PD-11	Nut, Engine Base Mounting	107	1	3 = 1 oz.	.03
*XH-11	Pin, Magneto Gear No. 2 x 1½" Taper	110	1	3 = 1 oz.	.06
CB-12	Coupler, Air	143	9	3 oz.	.75
*YD-12	Nipple, Spark Plug Safety	110	1	3 = 1 oz.	.20
*SA-13	Plug, Camshaft Pin Hole Welch	107	1	6 = 1 oz.	.03
*KF-14	Plunger, Oil Pump	108	1	2 oz.	.48
*PL-14	Key, Magneto Gear (Woodruff No. 5)	110	1	6 = 1 oz.	.03
*WE-14-A	Tank, Fuel (1.35 gal. capacity)	108	1	3 lbs.	3.15
*15-186	Spring, Drive	111	1	3 oz.	.88
CP-15	Adapter, Air Line	121	9	2 = 3 oz.	.25
*XD-15	Screw, 5/16"-18 x 3/4" Hex. Hd.	107	6	2 = 1 oz.	.06
*16-X121-C	Wire, Lead (16" long)	111	1	3 oz.	.80
*16-368	Sleeve, Grounding	111	1	5 = 1 oz.	.16
*16-369	Spring, Primary Grounding	111	1	10 = 1 oz.	.08
*16-463	Nut, Terminal	111	1	3 = 1 oz.	.16
*16-583	Washer, Drive Spring Spacing (brass)	111	1	1 oz.	.16
*16-738	Screw, Breaker Arm Spring or Clamp	111	2	5 = 1 oz.	.08
*16-914	Gasket, Impulse Cover	111	1	5 = 1 oz.	.16
*16-915	Ring, Impulse	111	1	1 oz.	.16

*Parts supplied by Wisconsin Motor Corporation.
†Parts supplied by Quincy Compressor Company.

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Numerical Parts List (continued)

CP-16 to PL-55

Part No.	Description	Page	Qty. Used	Weight	Price Each
CP-16	Adapter, Air Line	144	2	2 = 3 oz.	$ 0.25
DG-16	Guide, Valve Stem	124	1	30 = 1 oz.	.05
BA-17-1	Sleeve, Air Adjusting Valve	124	1	3 = 1 oz.	.20
*KF-17-1	Rod, Oil Pump Plunger Push	108	1	1 oz.	.32
*KF-19-A	Cap, Oil Pump Plunger Push Rod	108	1	1 oz.	.28
*LP-19	Strainer, Fuel (Tillotson No. OW-418)	108	1	6 oz.	1.33
*XB-20	Screw, Air Pipe	109	1	3 = 1 oz.	.07
*Y-20-D	Magneto (Wico No. C-150-C Special)	111	1	5¾ lbs.	22.99
DG-21	Nut, Lock	124	1	30 = 1 oz.	.05
*XD-21	Screw, 5/16"-18 x 1½" Hex. Hd.	109	2	1 oz.	.07
*LO-24	Cleaner, Air (American Specialties No. H-55-7185)	110	1	2 lbs.	4.84
*YD-24	Plug, Spark (Champion No. 6)	110	1	3 oz.	.40
*AG-26	Seat, Valve Spring	105	2	3 = 1 oz.	.15
*XD-26	Screw, 3/8"-16 x 7/8" Hex. Head	107	4	3 oz.	.06
*XD-28	Screw, 3/8"-16 x 1⅛" Hex. Head	107	3	5 = 4 oz.	.06
*XD-29	Screw, 3/8"-16 x 1¼" Hex. Head	105	5	4 = 7 oz.	.06
*PH-30	Washer, ¼" Copper	105	7	20 = 1 oz.	.03
*XD-30	Screw, 3/8"-16 x 1½" Hex. Head	105	3	4 = 11 oz.	.06
*GA-31	Gear, Crankshaft	106	1	8 oz.	2.18
*M-31-X	Screw, Fixed Contact	111	1	5 = 1 oz.	.08
*SD-31	Retainer, Crankshaft Oil Seal (Take-off end)	106	1	2 = 3 oz.	.14
*XI-32	Pin, Cotter 3/64" x 3/8"	110	1	6 = 1 oz.	.03
*M-33-X	Washer, Ground Stud	111	1	20 = 1 oz.	.08
*XA-33	Screw, ¼"-20 x 3/8" Round Head	108	4	6 = 1 oz.	.03
*M-34-X	Bushing, Ground Stud Insulating	111	2	25 = 1 oz.	.08
*M-35-X	Washer, Ground Stud Insulating (outside)	111	1	15 = 1 oz.	.08
*WD-35	Muffler	108	1	13 oz.	1.40
*LO-38	Elbow, Carburetor Drip Plug	109	1	1 oz.	.30
*ME-38	Ball, Oil Pump	108	2	6 = 1 oz.	.03
*SD-39	Retainer, Crankshaft Oil Seal (Flywheel end)	106	1	2 = 1 oz.	.08
*FA-40-C	Tapper, Valve	105	2	4 oz.	.73
*40-S-49	Lock Washer, Main Body Screw	112	5	10 = 1 oz.	.08
*M-42-XA	Washer, Driven Flange Spacing	111	1	4 = 1 oz.	.08
*HC-43	Bushing, Magneto Drive Shaft	110	1	3 = 10 oz.	.54
*L-45-B-2	Carburetor (Stromberg No. 426020)	112	1	3½ lbs.	16.15
*BA-45-H-3	Crankcase with Governor Spindle, Governor Shaft Oil Seal, Magneto Drive Shaft Bushing, and Welch Plug	107	1	27 lbs.	15.00
*XJ-45	Rivet, Governor Flyweight	110	2	6 = 1 oz.	.03
*AF-46	Spring, Valve	105	2	2 = 3 oz.	.20
*CA-48-C	Crankshaft with Main Bearings and Gear	106	1	21 lbs.	29.89
*DA-49	Rod, Connecting	106	1	1½ lbs.	7.87
*SA-49	Plate, Magneto Gear Cover	107	1	4 oz.	.18
*PK-50	Retainer, Oil Pump Ball	108	1	30 = 1 oz.	.10
HM-51	Nut, Fluid Cap Lock	124	1	20 = 5 oz.	.15
*PK-52	Retainer, Piston Pin	106	2	30 = 1 oz.	.10
*XA-52	Screw, ¼"-20 x 1½ Round Head	108	2	6 = 1 oz.	.03
HM-53	Cap, Fluid	124	1	15 = 1 lb.	.50
*PE-53	Lock Washer, Starting Pulley	106	1	3 = 1 oz.	.06
*M-55-XA	Lock Washer	111	5	20 = 1 oz.	.08
*PL-55	Key, Crankshaft Gear	106	1	3 = 1 oz.	.03

*Parts supplied by Wisconsin Motor Corporation.

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Numerical Parts List (continued) — QC-56-B to PM-141

Part No.	Description	Page	Qty. Used	Weight	Price Each
*QC-56-B	Gasket, Manifold Mounting	109	1	3= 1 oz.	$ 0.10
*KA-57	Body, Oil Pump	108	1	1¾ lbs.	.87
*PM-58	Spring, Oil Pump Plunger	108	1	3= 1 oz.	.14
*QC-58	Gasket, Carburetor Mounting	109	1	2= 1 oz.	.03
*AB-63-J	Head, Cylinder	105	1	5½ lbs.	4.50
*DE-65	Pin, Piston	106	1	3 oz.	.61
*XA-65	Screw, Governor Bracket	108	2	6= 1 oz.	.03
*SE-70	Shroud, Air	108	1	5½ lbs.	5.20
*UC-70-A-1	Pulley, Starter Rope	106	1	2¾ lbs.	2.15
*SE-72	Cover, Air Shroud	108	1	9 oz.	.73
Z-72	Ball, ¼" Diameter	128	2	100= 4 oz.	.05
*AA-74-B	Cylinder Only	105	1	15 lbs.	12.46
*AA-74-BS	Cylinder with Valves, Springs, Seats and Inspection Cover	105	1	16 lbs.	15.74
*AE-75-B	Valve	105	2	4 oz.	1.21
*PD-77	Nut, ¼"-20	108	6	5= 1 oz.	.03
*RC-77-3	Cap, Fuel Tank	110	1	2= 3 oz.	.58
*GD-80	Gear, Magneto	110	1	3 lbs.	3.27
HM-81-4	Body, Spray	124	1	10 oz.	4.95
*ME-84	Bearing, Main	106	2	7 oz.	1.60
*PG-84	Strap, Fuel Tank	108	2	8 oz.	.26
HM-85-1	Nut, Barrel Retaining	124	1	10= 7 oz.	.25
HM-87	Container, Oil	124	1	9 oz.	.60
*PL-87	Key, Flywheel	106	1	5= 4 oz.	.10
HM-88	Tube, Fluid	124	1	2 oz.	.25
*M-90-X	Lock Washer, Condenser Screw	111	1	20= 1 oz.	.08
HM-92	Tube, Air	124	1	10=12 oz.	.25
*EA-93-1	Camshaft and Gear with Pin	107	1	4 lbs.	5.93
*M-95-X	Pin, Stop Nut Cotter	111	1	150= 1 oz.	.05
*GD-98	Gear, Governor	110	1	8 oz.	1.50
*BB-101-A	Base	107	1	12 lbs.	4.48
A-102	Nut	125	2	10= 1 oz.	.05
*BH-104	Plate, Connecting Rod Inspection	107	1	7 oz.	.22
*BH-105	Plate, Valve Tapper Inspection	105	1	3= 10 oz.	.14
*BG-106-7	Plate, Bearing (take-off end)	107	1	4½ lbs.	2.54
*QA-107	Shim, Connecting Rod Bearing	106	2	2= 1 oz.	.12
*RD-107	Strainer, Oil	108	1	1 oz.	.30
*DC-109	Ring, Oil Regulating Piston	106	1	5= 4 oz.	.32
*PD-115	Nut, No. 10-32 Hex.	110	2	6= 1 oz.	.03
A-123	Pin	125	1	100= 3 oz.	.02
*BG-126	Plate, Bearing Retainer (Flywheel end)	107	1	1¼ lbs.	.87
*M-126-XB	Screw, Coil Core Clamp	111	2	5= 1 oz.	.08
C-127	Leather, 1⅜" O D. Cup	127	2	10= 1 oz.	.20
*OA-130-A	Disc, Magneto Coupling	110	1	3 oz.	.61
*HG-133	Bushing, Piston Pin	106	1	1 oz.	.34
*PC-133	Stud, Engine Base Mounting	107	1	2= 5 oz.	.10
*XD-135	Screw, ½"-13 x 1⅛" Hex. Head	105	4	6 oz.	.08
*XD-136	Screw, ¼"-20 x 2⅛" Hex. Head	105	1	2= 1 oz.	.08
*PD-141	Nut, 5/16"-24 Hex.	105	3	6= 1 oz.	.03
*PM-141	Spring, Governor	110	1	3= 1 oz.	.22

*Parts supplied by Wisconsin Motor Corporation.

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Numerical Parts List (continued)

NC-143 to FL-324

Part No	Description	Page	Qty. Used	Weight	Price Each
*NC-143	Flywheel	106	1	17½ lbs.	$ 5.40
*PB-147	Screw, Valve Tapper Adjusting	105	2	5= 4 oz.	.12
*PD-147	Nut, Cleaner Mounting Wing	109	1	6= 1 oz.	.03
*PB-148	Bolt, Connecting Rod	106	2	5= 4 oz.	.12
*PD-148	Nut, Connecting Rod	106	2	6= 1 oz.	.03
*C-150-C	Magneto, Wico (Wisconsin No. Y-20-D)	111	1	5¾ lbs.	22.99
*VE-150-2	Screw, Governor Spring Adjusting	110	1	5= 4 oz.	.24
*PB-160	Screw, ¼"-20 x ⅝" Hex. Head	109	1	3= 1 oz.	.03
*DC-163	Ring, Compression Piston	106	3	2= 1 oz.	.26
*BI-170-C-1	Bracket, Fuel Tank	108	1	4 lbs.	1.11
*177-S-44	Screw, Main Body (Short)	112	3	10= 1 oz.	.04
*177-S-45	Screw, Main Body (Long)	112	1	9= 1 oz.	.04
*A-179-X	Arm, Trip	111	1	4 oz.	.40
*DB-187-B	Piston (semi-finished)	106	1	15 oz.	4.60
*DB-187-B-1	Piston	106	1	15 oz.	5.20
*PH-191	Spacer, Magneto Drive Shaft	110	1	2= 1 oz.	.42
*PH-193	Washer, Bearing Seal Cork (Flywheel end)	106	1	20= 1 oz.	.06
197-5	Button, Spring	142	1	3= 1 oz.	.15
197-6	Spring, Light	142	1	2= 1 oz.	.25
197-8	Plate, Diaphragm	142	1	2 oz.	.35
*HG-201	Insert, Valve Seat	105	2	2= 1 oz.	.34
*PA-217	Pin, Oil Pump	108	1	6= 1 oz.	.10
*PA-218	Pin, Camshaft Support	107	1	8 oz.	.70
*U-218-A	Rope, Starter	106	1	3 oz.	.50
*OW-222	Gasket, Strainer	111	1	4= 1 oz.	.08
*LD-232	Manifold	109	1	2 lbs.	1.60
*HF-238	Washer, Bearing Seal Cork (take-off end)	106	1	6= 1 oz.	.06
*PA-239	Pin, Starter Rope Sheave	106	1	3= 1 oz.	.03
*A-243-X	Ring, Snap	111	1	200= 1 oz.	.08
*253-S-22	Screw, Float Hanger Drive	112	2	20= 1 oz.	.02
*IXA-256	Washer, Cover Screw	111	4	50= 1 oz.	.08
*RF-266	Nut, Breather Tube	109	2	1 oz.	.16
*BI-268	Pipe, Air Intake	109	1	3 lbs.	3.80
*RF-269	Fitting, Fuel Strainer Straight	108	1	2= 1 oz.	.10
*RF-270	Elbow, Carburetor	109	1	5= 4 oz.	.30
*RF-295	Elbow, Breather	109	1	1 oz.	.46
*RF-296	Elbow, Breather (Cylinder end)	109	1	2= 3 oz.	.34
‡FL-308	Fluid-Bal Complete (Alemite No. G-302407)	147	1	15½ lbs.	25.00
*PH-310	Seal, Governor Fulcrum Pin (National No. EX1164)	110	1	20= 1 oz.	.22
*PH-313	Shim, Governor Sleeve	110	1	20= 1 oz.	.03
*PG-315	Clip, Flywheel Screen Mounting	108	4	6= 1 oz.	.03
*PC-316	Stud, Air Shroud Cover	105	2	3= 2 oz.	.18
Z-319	Spring	128	2	80= 1 oz.	.05
†320	Compressor Unit only	113	1	207 lbs.	120.00
‡FL-321	Adapter, 1¼"-18 th'd	147	1	.....	.25
‡FL-322	Adapter, ½"-14 th'd	147	1	.....	.25
‡FL-323	Adapter, 1⅝"-18 th'd	147	1	.....	.40
‡FL-324	Adapter, ¾"-18 th'd	147	1	.....	.25

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Numerical Parts List (continued) — FL-330 to RF-808

Part No.	Description	Page	Qty. Used	Weight	Price Each
‡FL-330	Adapter, Box Type M. C.	147	1	.....	$ 0.50
*JD-335	Shaft, Magneto Drive	110	1	12 oz.	1.69
‡FL-340	Connection, "L"	147	1	.....	.50
‡FL-341	Connection, "L"	147	1	.....	.50
‡FL-343	Coupler, Hose	147	1	.....	2.00
*PG-343	Brace, Air Pipe	109	1	1 oz.	.08
*IXA-345	Plug, Main Housing Oil	111	1	5= 1 oz.	.08
*OW-352	Screen, Strainer	111	1	4= 1 oz.	.22
*OW-355	Body, Strainer	111	1	3 oz.	.52
*OW-363	Bowl, Strainer	111	1	2= 1 oz.	.22
A-367	Ball	130	4	200= 1 oz.	.02
*TC-370	Sleeve, Governor Gear	110	1	2= 5 oz.	1.10
*TC-371	Flyweight, Governor	110	2	5= 4 oz.	.06
*PC-372	Stud, Cleaner Mounting	109	1	2= 1 oz.	.22
*TC-372	Plunger, Governor	110	1	5= 4 oz.	.66
*TC-373	Shaft, Governor	110	1	2= 3 oz.	.10
*TC-374	Pin, Governor Lever Fulcrum	110	1	3= 2 oz.	.40
*TC-375	Lever, Governor (inner)	110	1	2= 1 oz.	.06
*TC-376	Lever, Governor Control	110	1	1 oz.	.10
*TC-379	Pin, Governor Lever Stop	110	1	3= 1 oz.	.14
CW-401-1	Valve Assembly, Air	124	1	10=14 oz.	.80
CW-405	Stem, Air Valve	124	1	5= 2 oz.	.30
DG-406	Washer and Nut, Valve Seat	124	1	20= 1 oz.	.10
BA-410-1	Valve, Air Adjusting (less Sleeve)	124	1	1 oz.	.65
*PG-412	Bracket, Governor Spring Adjusting Rod	108	1	2= 3 oz.	.22
HM-418	Barrel Assembly	124	1	1= 4 oz.	.60
HM-419	Nozzle, Oil Spray	124	1	10=13 oz.	1.50
*OW-432	Cock, Shut-off	111	1	1 oz.	.38
*VE-438	Rod, Governor Control	110	1	6= 1 oz.	.22
*OW-446	Stud and Wire, Clamp	111	1	2= 1 oz.	.22
*OW-447	Stud, Wire, Nut and Cup Assembly	111	1	1 oz.	.44
*RM-457	Tube, Breather	109	1	3 oz.	.85
*OW-462	Nut and Cup, Thump	111	1	4= 1 oz.	.22
*QD-484	Gasket, Cylinder Head	105	1	2= 1 oz.	.20
*QD-485	Gasket, Connecting Rod Inspection Plate	107	1	3= 1 oz.	.08
*QD-486	Gasket, Valve Tapper Inspection Plate	105	1	6= 1 oz.	.03
*QD-487-A	Gasket, Bearing Plate (.006" thick)	107	9	6= 1 oz.	.03
*QD-487-B	Gasket, Bearing Plate (.003" thick)	107	1	6= 1 oz.	.03
*QD-488	Gasket, Cylinder Base	105	1	6= 1 oz.	.03
*QD-489-B	Gasket, Engine Base	107	1	3= 1 oz.	.06
P-492	Lock Washer, ¾"		4	10= 1 oz.	.03
*QD-515	Gasket, Magneto Drive Cover	107	3	6= 1 oz.	.06
*QD-518	Gasket, Bearing Retainer Plate	107	1	60= 1 oz.	.03
C-526	Spreader	127	2	10= 1 oz.	.15
*IVA-583	Washer, Drive Cup Spacing (black)	111	1	1 oz.	.16
A-589	Ball, 3/32" Diameter	126	12	250= 1 oz.	.01
A-617	Spring, Coupling 17/32" Long	141	2	30= 1 oz.	.03
A-618	Spring, 13/32" Long	142	1	50= 1 oz.	.03
*RF-794	Nipple, Fuel Strainer	108	1	3= 1 oz.	.10
*RF-808	Nut, Fuel Line Tubing	108	2	2= 3 oz.	.21

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Numerical Parts List (continued)

RF-846 to 1643

Part No.	Description	Page	Qty. Used	Weight	Price Each
*RF-846	Tubing, Fuel Line (with nuts)	108	1	2 = 3 oz.	$ 0.58
G-985	Gasket, 15/16" O.D.	142	1	25 = 1 oz.	.05
A-1045	Plunger, Coupling	141	1	4 = 1 oz.	.05
†1112	Screw, VD Pilot Cap Retaining	116	4	12 = 1 oz.	.05
1147B-1	Body, Air Regulator	142	1	7 oz.	3.00
1147B-2	Bonnet, Air Regulator	142	1	5 oz.	2.50
1147B-3	Cap, Back	142	1	2 oz.	.95
1147-9	Diaphragm	142	1	10 = 3 oz.	.25
1147-10	Yoke	142	1	1 oz.	.25
1147-15	Nozzle, Air Regulator	142	1	1 oz.	.35
1147-16	Seat	142	1	100 = 1 oz.	.10
1147-17	Stem, Center Piece	142	1	2 = 1 oz.	.35
1147-19	Ring, Seat Retaining	142	1	1 oz.	.15
1147-21	Washer, Back Cap	142	1	10 = 1 oz.	.07
1147-23	Washer, Diaphragm	142	1	8 = 1 oz.	.15
1147-25	Guide, Center Piece	142	1	1 oz.	.20
*1194	Pad, Cam Oil	111	1	150 = 1 oz.	.08
*1196	Contact, Fixed	111	1	2 = 1 oz.	.80
*1197	Washer, Breaker Arm Spacing (3/64" thick)	111	1	15 = 1 oz.	.08
*1197-T	Washer, Breaker Arm Spacing	111	1	20 = 1 oz.	.08
*1207	Washer, Breaker Arm Clamp	111	1	15 = 1 oz.	.08
†1263	Pin, Low Pressure Piston	115	1	6 oz.	1.50
†1275	Piston, Low Pressure	115	1	2¾ lbs.	6.00
†1288	Ring, Low Pressure Piston Oil Control	115	1	1 oz.	.70
†1298	Pin, High Pressure Discharge Valve Stud Cotter	116	1	12 = 1 oz.	.05
†1301	Plug, Crankcase Drain	114	1	1 oz.	.05
†1364	Felt, Three-Way Valve	120	2	305 = 1 oz.	.05
†1369	Cap, Air Filter Inner	117	1	2½ lbs.	1.00
†1370	Cap, Air Filter Outer	117	1	1¼ lbs.	.75
†1372	Body, Check Valve	120	1	10 oz.	8.00
†1373	Cap, Check Valve	120	1	3 oz.	2.50
†1376	Gasket, Check Valve	120	1	90 = 1 oz.	.05
*1379	Pad, Oil	111	1	10 = 1 oz.	.16
*1383	Stud, Ground	111	1	5 = 1 oz.	.08
†1384	Screw, Low Pressure Piston Pin Set	115	1	3 = 1 oz.	.25
*X-1408	Arm, Breaker	111	1	2 oz.	2.00
*X-1413	Condenser	111	1	2 oz.	1.90
*1418	Spacer, Breaker Arm	111	1	3 = 1 oz.	.08
†1464	Ring, Low Pressure Piston Compression	115	3	2 = 1 oz.	.45
†1478	Washer, Cylinder Head Bolt	114	4	7 = 1 oz.	.10
*X-1487	Scraper, Oil	111	1	2 = 1 oz.	.40
†1530	Piston, High Pressure	115	1	1¼ lbs.	4.00
*1533	Gasket, Condenser Case	111	1	15 = 1 oz.	.08
†1579	Pin, Governor Flyweight	115	2	3 = 1 oz.	.20
†1586	Pin, High Pressure Piston	115	1	3 oz.	1.00
†1591	Shim, Three-Way Valve	120	5	16 = 1 oz.	.05
1620B-4	Screw, Adjusting	142	1	2 = 5 oz.	.75
†1625	Nut, VD Pilot Wing	116	1	3 = 1 oz.	.20
†1642	Elbow, Tube Connection	116	2	1 oz.	.40
†1643	Connector, Tubing Straight	120	3	1 oz.	.25

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Numerical Parts List (continued) — 1645 to 1844

Part No.	Description	Page	Qty. Used	Weight	Price Each
†1645	Pin, High Pressure Piston Pin Cotter	115	1	9= 1 oz.	$ 0.05
†1646	Bushing, High Pressure Wrist Pin	115	1	2= 1 oz.	.25
1650-7	Spring, Heavy	142	1	2 oz.	.35
†1652	Ring, High Pressure Piston Compression	115	3	3= 1 oz.	.40
†1653	Ring, High Pressure Piston Oil Control	115	1	3 oz.	.60
†1661	Pin, Low Pressure Discharge Valve Stud Cotter	116	1	12= 1 oz.	.05
†1665	Tee, Tubing	118	1	1 oz.	.60
†1679	Valve, Breather	115	1	8= 1 oz.	.15
†1680	Bumper, Breather Valve	115	1	1 oz.	.20
†1703	Screw, Head to Cylinder	114	2	1 oz.	.10
†1705	Plug, Tank Inspection	118	2	1 oz.	.45
†1752	Piston, Check Valve	120	1	1 oz.	3.00
*1760	Gasket, Coil	111	2	10= 1 oz.	.08
†1761	Key, Engine Sheave	119	1	5 oz.	.25
†1792	Plug, VD Pilot Inlet	116	1	1 oz.	.85
†1796	Nut, VD Pilot Adjustment Screw Lock	116	1	2= 1 oz.	.25
†1797	Shim, VD Pilot	116	5	6= 1 oz.	.05
†1798	Screen, VD Pilot Filter	116	2	50= 1 oz.	.05
†1799	Felt, VD Pilot Filter	116	1	56= 1 oz.	.10
†1801	Crankcase	114	1	42¾ lbs.	20.00
†1802	Carrier, Bearing	115	1	6 lbs.	6.00
†1803-U	Plate, Timken Bearing Adjustment	114	1	1¼ lbs.	1.35
†1804	Plate, Inspection	114	1	2½ lbs.	1.50
†1805	Head, Governor	115	1	15 oz.	1.75
†1806	Pulley, 16" Diameter	115	1	40½ lbs.	17.00
†1812	Cylinder	114	1	35½ lbs.	20.00
†1813	Head, Cylinder	114	1	23¼ lbs.	15.00
†1816-A	Plate, Low Pressure Discharge Valve Cover	116	1	2 lbs.	1.60
†1817	Body, Low Pressure Diaphragm	116	1	11 oz.	2.25
†1819	Seat, Low Pressure Discharge Valve	116	1	7 oz.	2.50
†1820	Bumper, Low Pressure Discharge Valve	116	1	10 oz.	2.00
†1821	Bumper, High Pressure Suction Valve	116	1	2 oz.	2.00
†1822	Seat, High Pressure Suction Valve	116	1	12 oz.	2.50
†1823-A	Body, High Pressure Diaphragm	116	1	1½ lbs.	3.50
†1825	Seat, High Pressure Discharge Valve Seat (Lapped)	116	1	5 oz.	3.00
†1826	Bumper, High Pressure Discharge Valve	116	1	8 oz.	2.00
†1827	Cap, High Pressure Discharge Valve Cover	116	1	15 oz.	.90
†1828	Intercooler	117	1	5¼ lbs.	14.00
†1830	Crankshaft	115	1	14¾ lbs.	20.00
†1831	Gasket, Bearing Carrier	115	1	10= 1 oz.	.15
†1832	Shim, Timken Bearing Adjustment	114	1	3= 1 oz.	.90
†1833	Gasket, Cylinder to Crankcase	114	1	6= 1 oz.	.20
†1834	Bolt, Connecting Rod	115	4	1 oz.	.25
†1835	Bushing, Low Pressure Wrist Pin	115	1	1 oz.	.50
†1838	Bolt, Cylinder Head	114	4	2 oz.	.20
†1840	Gasket, Inspection Plate	114	1	3= 1 oz.	.25
†1841	Ring, Oil Circulating	115	1	1 oz.	.80
†1842	Retainer, Oil Circulating Ring	114	1	2 oz.	.30
†1843	Gauge, Bayonet Oil Level	114	1	6 oz.	.75
†1844	Key, Pulley	115	1	1 oz.	.40

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Numerical Parts List (continued)

1846 to 2066

Part No.	Description	Page	Qty. Used	Weight	Price Each
†1846	Valve, Low Pressure Suction or Discharge	116	2	2 = 1 oz.	$ 1.40
†1847	Spring, High Pressure Suction Valve	116	1	4 = 1 oz.	.60
†1848	Gasket, Low Pressure Valve	116	2	12 = 1 oz.	.15
†1849	Stud, High Pressure Suction Valve	116	1	3 = 1 oz.	.20
†1850	Spring, High or Low Pressure Discharge Valve	116	6	38 = 1 oz.	.20
†1851	Stud, High or Low Pressure Discharge Valve	116	2	1 oz.	.50
†1852	Gasket, Low Pressure Discharge Valve Cover Plate	116	1	2 = 1 oz.	.15
†1855	Diaphragm	116	2	2 = 1 oz.	.60
†1857	Pin, High Pressure Unloader Kickoff	116	3	3 = 1 oz.	.30
†1858	Spring, Unloader Kickoff	116	6	18 = 1 oz.	.40
†1861	Flyweight, Governor	115	2	15 oz.	1.00
†1862	Spring, Governor Cushion	115	2	7 = 1 oz.	.20
†1863	Pin, Governor Heel	115	2	4 = 1 oz.	.25
†1864	Bar, Governor	115	1	2 = 1 oz.	.25
†1865	Plunger, Governor	115	1	3 = 1 oz.	1.20
†1866	Spring, Governor Plunger	115	1	2 = 1 oz.	.25
†1873	Gasket, Cylinder Head	114	1	3 oz.	.50
†1875	Valve, High Pressure Suction	116	1	3 = 1 oz.	1.40
†1875-L	Valve, High Pressure Discharge	116	1	1 oz.	2.15
†1876	Gasket, High Pressure Valve	116	2	14 = 1 oz.	.15
†1877	Gasket, High Pressure Valve Cover Cap	116	2	18 = 1 oz.	.20
†1878	Screw, High Pressure Suction Valve Lock	116	1	4 oz.	1.50
†1879	Screw, High Pressure Discharge Valve Lock	116	1	9 oz.	1.50
†1880	Plunger, Diaphragm	116	3	3 oz.	.90
†1881	Piston, High Pressure Diaphragm	116	1	5 oz.	1.50
†1883	Bolt and Nut, Pulley Clamp	115	1	7 oz.	.50
†1884	Spring, Three-Way Valve Outer Plunger	120	1	112 = 1 oz.	.15
†1895	Body, VD Pilot	116	1	10 oz.	6.50
†1896	Rod, VD Pilot	116	1	1 oz.	.85
†1897	Piston, VD Pilot	116	1	1 oz.	1.75
†1901	Cap, VD Pilot	116	1	4 oz.	2.25
†1920	Screw, Intercooler	117	4	2 = 1 oz.	.05
†1924	Screw, Engine Slide Rail	119	6	1 oz.	.10
†1990	Screw	114	8	2 = 1 oz.	.10
*1991	Nut, Ground Stud	111	1	5 = 1 oz.	.08
†1991	Screw, Air Filter Outer Cap	117	1	4 = 1 oz.	.05
*1992-B	Nut, Stop	111	1	3 = 1 oz.	.32
†1993	Screw, Bearing Adjustment Plate	114	4	1 oz.	.05
†1995	Pin, Low Pressure Piston Pin Lock Screw Cotter	115	1	27 = 1 oz.	.05
†1999	Lock Washer	116	4	150 = 1 oz.	.05
†2037	Spring, Low Pressure Suction Valve	116	1	6 = 1 oz.	.40
†2040	Screw, Diaphragm Cover	116	12	5 = 1 oz.	.05
†2054	Screw	114	10	1 oz.	.10
†2055	Screw	114	12	1 oz.	.05
†2059	Nut, Cushion Connector	118	8	5 = 1 oz.	.10
2060L-18	Spring, Back Cap	142	1	2 = 1 oz.	.25
†2063	Seat, Low Pressure Suction Valve	116	1	1 lb.	3.00
†2064	Bumper, Low Pressure Suction Valve	116	1	1 oz.	.90
†2065	Screw, Low Pressure Suction Valve Bumper	116	1	3 = 1 oz.	.25
†2066	Pin, Low Pressure Unloader Kickoff	116	3	3 = 1 oz.	.35

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Numerical Parts List (continued) 2076 to 2719

Part No.	Description	Page	Qty. Used	Weight	Price Each
*2076	Nut, Impulse Lock	111	1	2 oz.	$ 0.56
‡FC-2103	Gasket, Bottom Adapter	147	4	60 = 1 oz.	.03
*2121	Spacer, Impulse	111	1	3 = 1 oz.	.08
*2122	Spacer, Driven Flange	111	1	2 oz.	.16
†2138	Screw, Breather Valve	115	1	5 = 1 oz.	.05
†2139	Washer, Tubing Clamp Shakeproof	118	1	98 = 1 oz.	.05
†2189	Nipple, VD Pilot Mounting	118	1	2 = 1 oz.	.60
†2216	Connector, Discharge Tube	114	2	2 oz.	1.05
†2217	Nut, Discharge Tube Connector	117	2	4 oz.	.75
†2225	Screw, Tube Clamp	118	1	9 = 1 oz.	.05
*2264-B	Wedge, Coil	111	2	15 = 1 oz.	.08
*X-2287	Flange, Driven (CCW)	111	1	4 oz.	.80
*2288	Retainer, Drive Spring	111	1	2 = 1 oz.	.08
*P-2290	Nut, Choke Lever	112	1	20 = 1 oz.	.02
†2409	Cap, Three-Way Valve Outer	120	1	2 = 1 oz.	.80
†2410	Rod, Three-Way Valve Push	120	1	43 = 1 oz.	.20
†2412	Disc, Three-Way Valve	120	2	46 = 1 oz.	.90
†2413	Button, Three-Way Valve Push	120	1	7 = 1 oz.	.75
†2414	Cap, Three-Way Valve Inner	120	1	1 oz.	1.00
†2415	Valve, Three-Way (complete)	120	1	8 oz.	7.00
†2427	Cushion, Rubber	118	4	5 oz.	.75
†2432	Chamber, Discharge (with plugs and bushing)	118	1	8 lbs.	7.00
†2438	Tube, Discharge	117	1	2 lbs.	7.00
†2439	Rail, Engine Slide	119	2	2½ lbs.	1.50
*2495	Bushing, Rotor	111	1	1 oz.	.32
*2496	Gasket, Impulse Stop	111	1	50 = 1 oz.	.08
*2497	Gasket, Breaker Cover	111	1	20 = 1 oz.	.08
*2503	Clamp, Coil Core	111	2	2 = 1 oz.	.08
*2504	Gasket, Cover	111	1	10 = 1 oz.	.08
*2505	Plate, Oil Pad Spring	111	1	3 = 1 oz.	.08
†2522	Brace, Intercooler	117	2	2 oz.	.75
†2523	Cup, Timken Bearing (governor end)	115	1	3 oz.	1.78
†2559	Screen, Air Filter, Outer	117	1	2 oz.	.50
†2560	Felt, Air Filter	117	1	2 oz.	.35
†2561	Screen, Air Filter, Inner	117	1	2 oz.	.30
†2562	Insert, Air Filter Baffle (small)	117	1	5 oz.	.40
†2563	Insert, Air Filter Baffle (medium)	117	1	5 oz.	.50
†2564	Insert, Air Filter Baffle (large)	117	1	6 oz.	.60
*2573	Lock Washer, Breaker Arm Spring Screw	111	1	20 = 1 oz.	.08
†2585	Cone, Timken Bearing (governor end)	115	1	9 oz.	3.10
P-2595	Pin, Cotter	122	4	18 = 1 oz.	.01
†2622	Screw, Low Pressure Discharge Valve Lock	116	1	2 oz.	.45
†2623	Nut, Low Pressure Discharge Valve Lock Screw	116	1	1 oz.	.35
*2641	Screw, Impulse Stop	111	3	10 = 1 oz.	.08
†2700	Nut, Tubing	118	4	2 oz.	.40
†2702	Connector, Tubing Straight	118	2	1 oz.	.45
*X-2706	Core, Coil	111	1	9 oz.	.88
†2708	Connector, Tubing Elbow	118	3	1 oz.	.45
†2716	Lock Washer, Intercooler	117	4	22 = 1 oz.	.05
†2719	Plug, Bottom Tank Inspection	118	1	2 = 1 oz.	.30

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Numerical Parts List (continued) — X-2719 to 3025

Part No.	Description	Page	Qty. Used	Weight	Price Each
*X-2719	Stop, Impulse	111	1	6 oz.	$ 1.35
†2720	Cup, Timken Bearing (pulley end)	115	1	6 oz.	1.95
*X-2721-A	Lead, Ground Stud (R. H.)	111	1	2 oz.	.40
†2730	Lock Washer	114	8	6 = 1 oz.	.05
†2731	Nut, Compressor to Base	114	2	2 = 1 oz.	.05
†2732	Lock Washer	118	6	2 = 1 oz.	.05
†2733	Washer, Breather Valve	115	1	8 = 1 oz.	.05
†2739	Nipple, ½"	118	2	1 oz.	.25
†2742	Screw, Three-Way Valve Mounting	120	2	3 = 1 oz.	.05
*2745	Disc, Oiling	111	1	1 oz.	.80
*2749	Lock Washer, Impulse Stop Screw	111	3	20 = 1 oz.	.08
†2749	Valve, Outlet (Crane No. 821)	118	1	1¾ lbs.	6.00
†2762	Nut, Engine to Rail Screw	119	4	2 = 1 oz.	.05
*X-2766	Coil	111	1	10 oz.	4.40
†2784	Screw	119	5	14 = 1 oz.	.05
†2786	Lock Washer	120	4	104 = 1 oz.	.05
†2788	Cone, Timken Bearing (pulley end)	115	1	10 oz.	3.25
*X-2799	Cover	111	1	6 oz.	3.50
†2826	Rod, Low Pressure Connecting	115	1	1¾ lbs.	10.50
†2826-HP	Rod, High Pressure Connecting	115	1	1¾ lbs.	10.50
†2827	Bearing, Connecting Rod (lower half)	115	2	1 oz.	1.25
†2828	Bearing, Connecting Rod (upper half)	115	2	1 oz.	1.25
†2830	Wire, Connecting Rod	115	2	10 ft. = 1 oz.	.05
†2866	Tube, VD Pilot to Throttling Control ¼"	118	1	6 oz.	.70
†2899	Screw, Compressor to Base	114	2	1 oz.	.10
†2905	Screw, Carburetor Control Bracket	119	1	7 = 1 oz.	.05
†2930	Seat, High Pressure Unloader Piston	116	1	6 = 1 oz.	.50
†2951	Bushing, ½" to ¼"	118	1	2 oz.	.25
†2953	Connector, Tubing Elbow	118	2	1 oz.	.50
†2987	Plate, Receiver Top	118	1	36 lbs.	10.00
†2988	Receiver, A.S.M.E. Air	118	1	116 lbs.	47.00
†2991	Bracket, Carburetor Control	119	1	8 oz.	2.00
†2992	Arm, Carburetor Control	119	1	1 oz.	1.50
†2998	Cover, Diaphragm	116	2	9 oz.	1.00
†2999	Clamp, Engine Slide Rail	119	4	9 oz.	.50
†3002	Screw, Set	119	2	7 = 1 oz.	.15
†3003	Tee, 1¼" Service	118	1	1 oz.	.40
†3004	Elbow, Air Filter	117	1	9 oz.	.75
†3005	Nipple, Air Filter	117	1	1 lb.	.45
†3006	Elbow, ⅛" Street	120	1	1 oz.	.40
†3007	Manifold, Outlet (Complete)	118	1	2¼ lbs.	8.00
†3016	Nipple, 1⅛" Close	120	1	6 = 1 oz.	.20
†3018	Tube, Three-Way Valve to Receiver ¼"	118	1	2 oz.	1.00
†3019	Tube, VD Pilot to Check Valve ¼"	118	1	9 oz.	.70
†3020	Tube, Check Valve to Diaphragm ¼"	120	1	1 oz.	.30
†3021	Elbow, Safety Valve	118	1	4 oz.	.35
†3022	Valve, A.S.M.E. Safety	118	1	12 oz.	5.00
†3023	Clamp, Tubing	118	1	5 = 1 oz.	.35
†3024	Tube, Discharge Chamber to Receiver	118	1	6 oz.	.90
†3025	Belt, Vee	119	2	9 oz.	2.80

*Parts supplied by Wisconsin Motor Corporation.
†Parts supplied by Quincy Compressor Company.

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Numerical Parts List (continued) 3026 to 6290

Part No.	Description	Page	Qty. Used	Weight	Price Each
†3026	Tube, VD Pilot to Receiver ⅜"	118	1	2 oz.	$ 1.50
†3027	Gauge, 300-Pound Air Pressure	118	1	10 oz.	2.00
†3028	Tube, Three-Way Valve to Check Valve 1¼"	120	1	4 oz.	.80
†3030	Spring, VD Pilot Adjustment Screw	116	1	2 = 1 oz.	.60
†3031	Assembly, High Pressure Discharge Valve	116	1	14 oz.	7.75
†3032	Assembly, High Pressure Suction Valve	116	1	14 oz.	6.25
†3033	Assembly, High Pressure Diaphragm, Unloading	116	1	2¾ lbs.	8.25
†3034	Gaskets (complete set for compressor)			6 oz.	2.25
†3037	Screw, VD Pilot Adjustment	116	1	2 oz.	1.25
*3095	Cover, Impulse	111	1	2 oz.	.32
†3095	Cylinder and Bracket, Carburetor Control	120	1	8 oz.	4.25
†3096	Cap, Carburetor Control Cylinder	120	1	2 oz.	1.00
†3097	Plunger, Carburetor Control	120	1	1 oz.	1.75
†3098	Nut, Carburetor Control Plunger, Outer	120	1	4 = 1 oz.	.60
†3099	Nut, Carburetor Control Plunger, Inner	120	1	9 = 1 oz.	.60
†3100	Gasket, Carburetor Control Cap	120	1	136 = 1 oz.	.15
*3101	Cover, Breaker	111	1	2 oz.	.88
†3101	Throttling Device (complete with bracket)	120	1	11 oz.	10.00
*3103	Spring, Breaker Cover Hold Down	111	1	3 = 1 oz.	.32
†3112	Valve, Dual Control Check	120	1	14 oz.	15.00
†3113-1"	Filter, Air (complete)	117	1	4½ lbs.	3.50
†3114	Sheave, 5.5" O.D. 2-Groove "B" Section Engine	119	1	4¼ oz.	8.60
*3145	Cup, Drive	111	1	6 oz.	3.50
†3157	Elbow, ¼" Street (tapped ⅛" on Male end)	118	1	2 oz.	.30
†3158	Tee, ½" x ½" x ½"	118	1	6 oz.	.70
†3159	Pipe, ⅛" x 17" long	118	1	6 oz.	.60
*X-3185	Housing, Main	111	1	3 lbs.	10.50
*P-3292	Plug, Pipe	112	1	2 = 1 oz.	.16
*3539	Washer, Ground Stud Insulating	111	2	10 = 1 oz.	.08
*4631	Stud, Ground	111	1	2 oz.	.08
*4697	Screw, Cover	111	1	10 = 1 oz.	.08
*S4704	Tool, Impulse Lock Nut Removal	50		1 oz.	1.15
*X-4713	Rotor	111	1	1½ lbs.	10.50
‡FD-4771	Cap, Filler	147	1	2 = 11 oz.	.50
5328	Gun, Oil Spray	124	1	4 lbs.	7.90
5329	Adapter, Hydraulic to Pin Type	141	1	2½ oz.	.75
5336	Oiler, Pistol		1	6 oz.	1.50
*X-5449	Tool, Breaker Gap Alignment	14		4 oz.	3.75
*S5619	Tool, Impulse Lock Nut Assembly	50		3 oz.	.60
6060	Gun, One-Pound Single Shot	125	1	8 lbs.	27.35
6220	Gun, High Pressure Lever	130, 131	1	9 lbs.	18.00
6230	Gun, Low Pressure Lever	130, 131	1	8½ lbs.	17.00
6270	Gun, Oil (12-ounce)	127	1	4½ lbs.	3.50
‡FC-6283	Adapter, Bottom	147	1	2 oz.	.15
‡FC-6286	Handle	147	1	1 oz.	.10
‡FC-6287	Gasket, Gauge	147	1		.05
‡FC-6288	Gasket, Filler Cap	147	1		.05
‡FC-6289	Lock Nut, 7/16"-20 Hex. Gauge	147	1	4 = 1 oz.	.10
6290	Gun, Push Type	128, 129	2	4 lbs.	10.50

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‡Parts supplied by Wagner Electric Corporation.

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Numerical Parts List (continued)

FC-6291 to 7428

Part No.	Description	Page	Qty. Used	Weight	Price Each
‡FC-6291	Hook, Retainer Chain	147	1	6 = 1 oz.	$ 0.05
‡FC-6297	Clip, Adapter	147	4	.....	.05
‡FC-6298	Stud, Spring Clip	147	4	12 = 1 oz.	.10
‡FC-6299	Float	147	1	.....	.90
6302	Adapter, Hydraulic to Pin Type Universal	141	1	14 oz.	3.50
6304	Coupling, Hydraulic	140	4	2½ oz.	1.00
6305	Extension, Pipe, with Hydraulic Coupling (long)	140	1	7 oz.	1.80
6306	Extension, Pipe, with Hydraulic Coupling (short)	140	2	5½ oz.	1.80
6307-A	Adapter, Hydraulic to Push Type	132	2	2 oz.	.60
6313	Nozzle, Volume	140	1	5 oz.	1 00
6316	Nozzle, Gooseneck	140	1	7 oz.	.80
6318	Tubing, 12" Flexible	140	1	3 oz.	75
6325-A	Meter, Gear Lubricant	136	1	6½ lbs.	25 00
‡FC-6371	Hose, 12" long	147	1	.....	60
‡FC-6372	Hose, 72" long	147	1	.....	3.00
P-6526	Washer	136	1	40 = 1 oz.	02
‡FC-6573	Cap, Air Valve	147	1	5 = 2 oz.	.30
‡FC-6574	Gauge, Air Pressure	147	1	6 = 1 lb.	1.50
‡FC-6575	Cap, Relief Valve	147	1	4 = 1 oz.	.20
‡FC-6576	Caster (Faultless No. W-758-A)	147	3	4 oz.	.15
‡FC-6580	Spring, Relief Valve	147	1	.....	.05
‡FC-6581	Gasket, Bottom Adapter	147	1	30 = 1 oz.	.05
‡FC-6582	Screen, Bottom Adapter	147	1	40 = 1 oz.	.05
‡FC-6583	Valve, Air (Schrader No. 1468)	147	1	8 = 3 oz.	.20
‡FC-6584	Valve, Shut-Off	147	1	.....	.90
‡FC-6585	Cap Assembly, Filler	147	1	.....	7.85
‡FC-6587	Chain and Bar	147	1	.....	.20
‡FC-6588	Plunger Assembly, Relief Valve	147	1	.....	.50
‡FC-6589	Top, Glass Gauge	147	1	8 = 1 oz.	.15
‡FC-6604	Hose and Adapter	147	1	.....	1.00
6611	Meter, Motor Oil	135	1	6¾ lbs.	36.75
6613	Meter, Gear Lubricant (with Totalizer)	137	1	7 lbs.	32.50
6620	Motor, Air	127	1	3½ lbs.	20 00
6625-C	Magazine	126	1	5 lbs.	19.00
6648	Gun, Flex-Tip Air Blow		1	4 oz.	1.85
6685	Lubricator, Wheel Bearing	146	1	3¼ lbs.	4.95
6979-R	Hose, 30-Ft. High Pressure	132	2	18 lbs.	57.85
6986-B	Hose, 1½-Ft. with Standard Button Head Coupling	142	1	1½ lbs.	6.30
6987-B	Hose, 1½-Ft. with Giant Button Head Coupling	142	1	1¾ lbs.	7.05
6991-H	Hose, 7-Ft. Connecting	133	2	4½ lbs.	14.95
6992-H	Hose, 7-Ft. Connecting	133	2	4½ lbs.	15.30
6993-R	Hose, 30-Ft. Motor Oil	133	1	24¼ lbs.	83.50
6994-R	Hose, 30-Ft. Gear Lubricant	133	1	24½ lbs.	79.25
7226	Pump, High Pressure "Chassis"	121, 122	2	32 lbs.	117.00
7227	Pump, Low Pressure "Gear"	121, 123	1	32 lbs.	92.50
7228	Pump, Low Pressure "Motor Oil"	121, 123	1	32 lbs.	92.50
*A-7419	Gasket, Filter Mounting	110	1	2 = 1 oz.	.06
*A-7421	Gasket, Filter Oil Seal	110	1	4 = 1 oz.	.20
*A-7422	Gasket, Filter Cap	110	1	4 = 1 oz.	.06
*7428	Body, Filter	110	1	10 oz.	1.90

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Numerical Parts List (continued)

A-7432 to 42802

Part No.	Description	Page	Qty. Used	Weight	Price Each
*A-7432	Filter Unit	110	1	12 oz.	$ 2.25
P-8039	Nut, 3/8"-24 Hex.	143	1	7 = 1 oz.	.05
*A-9313	Cap, Filter	110	1	5 oz.	.50
*P-11572	Gasket, Metering Jet	112	1	30 = 1 oz.	.02
12363	Lock Washer		3	20 = 1 oz.	.01
12369	Lock Washer, 1/4"	121	24	50 = 1 oz.	.01
12381	Nut, Hex.	127	2	25 = 2 oz.	.02
12413	Lock Washer	121	33	20 = 1 oz.	.01
12490	Lock Washer	139	6	20 = 1 oz.	.01
*P-12530	Spring, Idle Needle Valve	112	1	10 = 1 oz.	.16
13384	Screw, No. 6-32	127	2	45 = 1 oz.	.01
13386	Nut	139	6	10 = 3 oz.	.02
*P-15301	Spring, Throttle Stop Screw	112	1	15 = 1 oz.	.08
15387	Nut	146	1	3 = 1 oz.	.05
*P-15396	Valve, Idle Needle	112	1	2 = 1 oz.	.60
*P-15459	Plug, Channel	112	1	8 = 1 oz.	.08
*P-16161	Screw, Throttle Stem Collar Set	112	1	25 = 1 oz.	.08
*P-17081	Collar, Throttle Stem	112	1	4 = 1 oz.	.08
*P-18194	Clip, Choke Spring	112	1	4 = 1 oz.	.22
*P-18340	Jet, Main Discharge (No. 52)	112	1	1 oz.	1.28
*P-18341	Spring, Choke	112	1	5 = 1 oz.	.08
18684	Screw, 1/2"-13" x 1 1/2" Hex. Head		4	1 oz.	.05
18802	Nut	127	1	200 = 1 oz.	.02
*P-18921	Jet, Metering	112	1	1 oz.	2.02
*P-20242	Bleeder, High Speed (No. 65)	112	1	20 = 1 oz.	.38
*P-23474	Screw, Throttle Stop	112	1	10 = 1 oz.	.02
31389	Lock Washer, 1/4"		2	100 = 1 oz.	.01
33291	Lock Washer, 5/16" Tooth	139	4	60 = 1 oz.	.01
40078	Ball, Check Valve	126	1	25 = 2 oz.	.05
40996	Bushing, 1/4" x 3/8" P.T.	132	4	10 = 5 oz.	.25
41176	Sleeve, Compression	121	8	30 = 1 oz.	.05
41177	Nut, Compression	121	8	8 = 1 oz.	.05
41178	Nut, Compression	121	8	5 = 1 oz.	.05
41179	Sleeve, Compression	121	8	30 = 1 oz.	.05
41709	Spring, 1" long	142	1	20 = 1 oz.	.05
41729	Adapter, 3/8" P.T.	132	8	5 = 6 oz.	.50
42023	Plug, Coupling	142	1	10 = 9 oz.	.30
G-42030	Coupling, Standard Button Head	142	1	6 oz.	2.75
42035	Body, Coupling	142	1	2 = 9 oz.	2.25
42055	Washer	141	1	35 = 1 oz.	.05
42075	Lock Washer	130	4	25 = 1 oz.	.02
42106	Ball	127	2	35 = 1 oz.	.05
42151	Stud, 1/2"-27 th'd	142	2	5 = 4 oz.	.20
42159	Adapter, 1/2"-27 th'd	132	11	10 = 9 oz.	.20
42165	Body, Adapter	142	1	1 = 2 oz.	.75
42223	Spring, Lock 13/16" long	132	5	30 = 1 oz.	.10
42314	Ball	122	2	10 = 1 oz.	.05
42478	Bushing	121	4	4 = 1 oz.	.15
42802	Coupling, 1/4" P.T.	121	4	2 = 3 oz.	.20

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Numerical Parts List (continued) — 43379 to 47067

Part No.	Description	Page	Qty. Used	Weight	Price Each
43379	Adapter, ½″-27 x ¼″ P.T.	132	4	1 oz.	$ 0.20
43394	Packing	130	2	12 = 1 oz.	.05
43432	Ball, 3/16″ Diameter	128	8	50 = 1 oz.	.02
43651	Pin, Cotter	125	1	100 = 1 oz.	.02
43809	Ring, Hose	142	2	5 = 3 oz.	.10
43851	Washer, 11/32″ O.D. Steel	141	3	100 = 1 oz.	.02
43877	Washer, 9/16″ O.D. Steel	127	2	16 = 1 oz.	.02
G-44175	Coupling, Giant Button Head	142	3	9 oz.	4.00
44176	Body, Coupling	142	1	7 oz.	3.25
44177	Plug, Coupling	142	1	3 = 4 oz.	.30
44356	Body, Coupling	141	1	1 oz.	.20
44357	Gasket	141	1	100 = 1 oz.	.05
44734	Adapter, ½″-27x3/8″ P.T.	133	4	2 = 3 oz.	.35
44769	Gasket, 1-1/16″ O.D.	142	1	30 = 1 oz.	.05
44819	Nut	125	1	3 = 1 oz.	.10
44878	Nipple, ¼″ P.T.	139	1	2 = 1 oz.	.15
44883	Elbow, ¼″ P.T. Street	121	8	2 = 3 oz.	.35
45006	Nut, 3/8″-24	128	2	4 = 1 oz.	.10
45063	Nut, Follower Rod	126	1	1 oz.	.10
45120	Bushing, ⅛″ x 1¼″ P.T.	122	2	10 = 7 oz.	.10
G-45209	Body, Pin Type Coupling	141	1	1 oz.	.20
45363	Pin, 3/32″ x 1″ Cotter	123	2	27 = 1 oz.	.02
45368	Screw, 3/8″-16 x 5/8″ Hex. Head	138	20	2 = 1 oz.	.05
45387	Washer	126	3	100 = 1 oz.	.02
45388	Leather, Cup	126	3	100 = 1 oz.	.05
G-45723	Valve, Air	125	1	25 = 1 oz.	.08
45978	Ring, Wire	140	7	100 = 1 oz.	.05
45985	Ring, Valve	126	3	10 = 1 oz.	.05
46118	Leather, Cup	141	4	100 = 1 oz.	.04
46187	Screw, 3/8″ x 1¼″ Hex. Head	121	59	5 = 4 oz.	.05
46246	Extension	134	2	1 oz.	.20
46264	Nut, ¼″-28 Castle	122	2	6 = 1 oz.	.05
46423	Pin, Cotter	122	4	150 = 1 oz.	.02
46458	Nut	125	1	5 = 1 oz.	.05
46506	Screen	127	1	100 = 1 oz.	.05
46507	Gasket	127	2	200 = 1 oz.	.02
46576	Jaw, Coupling	140	18	250 = 1 lb.	.05
46584	Gasket	140	6	100 = 1 oz.	.03
G-46589	Nozzle Assembly	140	6	10 = 3 oz.	.30
46604	Tip, Hydraulic Fitting	146	4	50 = 3 oz.	.05
46759	Bushing	141	6	3 = 1 oz.	.20
46857	Stem, Plunger	126	1	5 = 1 oz.	.25
46860	Gasket	126	1	75 = 1 oz.	.05
46861	Plate, Guide	126	1	25 = 1 oz.	.05
46883	Spring	125	1	15 = 1 oz.	.05
46886	Spring	126	1	13 = 1 oz.	.10
46903	Plug	125	1	20 = 1 oz.	.05
47039	Spring, 9/16″ long	140	2	30 = 1 oz.	.05
47041	Sleeve, Coupling	140	6	5 oz.	.35
47064	Washer	134	6	50 = 1 oz.	.05
47066	Screw	134	4	20 = 4 oz.	.10
47067	Nut, No. 8-32	125	12	50 = 1 oz.	.02

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Numerical Parts List (continued) 47069 to 48119

Part No.	Description	Page	Qty. Used	Weight	Price Each
47069	Bushing	134	2	1 oz.	$ 0.40
47071	Seat, Valve	134	2	10 = 1 oz.	.10
47073	Spring, 1-9/32" long	134	2	5 = 1 oz.	.05
47074	Bushing, Valve	134	2	1 oz.	.40
47075	Nut, Lock	134	2	3 = 1 oz.	.20
47076	Ring, Packing	134	2	12 = 1 oz.	.05
47079	Spacer	134	2	1 oz.	.40
47081	Spring, 1½" long	134	2	8 = 1 oz.	.05
47085	Link	134	2	4 = 1 oz.	.10
47086	Link	134	2	4 = 1 oz.	.10
47089	Washer	134	2	30 = 1 oz.	.02
47092	Washer, Steel	134	2	100 = 1 oz.	.02
47098	Screw, Set	134	2	5 = 1 oz.	.05
47099	Packing, Leather	134	2	200 = 1 oz.	.05
47123	Screw, Release Valve	122	5	2 = 1 oz.	.20
47124	Seat, Release Valve	122	5	3 = 1 oz.	.15
47167	Guide, Plunger	126	1	5 = 1 oz.	.25
47168	Screw	126	1	25 = 1 oz.	.10
47274	Gasket	140	1	150 = 1 oz.	.02
G-47301	Valve Assembly	134	2	4 = 1 oz.	.20
47313	Ball	125	1	16 = 1 oz.	.05
47491	Bushing	127	1	2 = 1 oz.	.25
47530	Ball, Pressure Release Valve	121	4	200 = 1 oz.	.05
47580	Washer, Steel	141	6	13 = 1 oz.	.05
47581	Washer, Steel	141	6	30 = 1 oz.	.05
47582	Leather, "V"	141	12	50 = 1 oz.	.05
47583	Washer, Split	141	12	15 = 1 oz.	.05
47585	Body, Angle	141	4	3 = 5 oz.	.90
47586	Stud	141	2	5 = 4 oz.	.25
47587	Nut, Wing	141	2	2 oz.	.90
47588	Spring, Plunger	141	1	50 = 1 oz.	.05
47628	Adapter, Coupling	140	2	5 = 4 oz.	.40
47629	Nozzle, Push Type	128	2	2 = 1 oz.	.30
G-47634	Coupling, Hydraulic	140	2	2 oz.	1.00
47689	Leather, "V" 2 11/32" O.D.	126	3	5 = 1 oz.	.25
47719	Packing	125	1	100 = 1 oz.	.07
47732	Plug, Oiler	127	1	2 = 1 oz.	.25
47735	Gasket	127	1	150 = 1 oz.	.02
47736	Screen, Air Filter	143	1	100 = 1 oz.	.05
47737	Adapter, ¼" Female P.T.	143	1	1 oz.	.50
47754	Body, Fitting	141	2	50 = 11 oz.	.06
47925	Gasket	126	1	40 = 1 oz.	.05
47984	Nut, 9/16"-18 Hex.	121	4	2 = 1 oz.	.10
48092	Hook, 2¾" O.D.	130	2	1 oz.	.30
G-48100	Piston and Bushing, High Pressure	130	1	7 oz.	2.65
48102	Sleeve	130	2	6 oz.	1.70
48103	Cap, 2 19/32" Hex.	130	2	3 oz.	1.60
48109	Screw	130	4	5 = 1 oz.	.07
48114	Stem, Valve	126	3	4 = 1 oz.	.15
48115	Screw, Lock	126	3	10 = 1 oz.	.05
48116	Spring, 1⅛" long	126	3	8 = 1 oz.	.05
48119	Link (round hole)	130	2	2 = 1 oz.	.20

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Numerical Parts List (continued) 48120 to 48325

Part No.	Description	Page	Qty. Used	Weight	Price Each
48120	Adapter	130	4	3 oz.	$ 0.70
48122	Leather, "V"	130	8	10 = 1 oz.	.25
48126	Gasket, 2 5/16" O.D.	130	2	12 = 1 oz.	.05
48132	Leather, "V"	126	6	40 = 1 oz.	.10
48136	Body	135	2	2 = 3 oz.	.65
48137	Adapter	130	2	4 = 1 oz.	.10
48138	Adapter	130	2	5 oz.	1.10
48145	Spring	128	4	6 = 1 oz.	.10
48146	Lever	130	2	13 oz.	2.15
48152	Gasket	130	2	40 = 1 oz.	.05
48153	Stud	130	2	6 = 1 oz.	.10
48154	Spring	126	3	4 = 1 oz.	.07
48156	Gasket	130	2	15 = 1 oz.	.05
48158	Screw, Packing	130	1	2 = 1 oz.	.25
48159	Link (hexagon hole)	130	2	1 oz.	.20
48161	Gasket	130	2	50 = 1 oz.	.05
48169	Screw, No. 2		4	150 = 1 oz.	.01
G-48170	Valve, Shut-Off	135	6	2 oz.	1.00
48176	Bushing	128	4	2 = 1 oz.	.25
48177	Sleeve	128	4	2 oz.	.70
48178	Sleeve	128	4	2 = 3 oz.	.40
48179	Screw, Packing	130	1	3 = 2 oz.	.30
48180	Stem, Follower	130	2	8 oz.	.65
48191	Gasket	127	3	50 = 1 oz.	.05
48192	Adapter	127	1	1 oz.	65
48205	Nut, Coupling	140	7	1 oz.	.20
48206	Gasket	140	7	60 = 1 oz.	.05
48217	Body	140	5	1 oz.	.25
G-48221	Adapter Assembly	140	5	2 oz.	.50
48287	Sleeve	130	2	1 oz.	.40
48288	Nut	130	2	4 oz.	.55
48289	Retainer	130	2	4 oz.	.75
48290	Washer	130	2	4 = 1 oz.	.05
48291	Washer	130	8	3 = 1 oz.	.10
48292	Washer, "V"	126	15	15 = 1 oz.	.05
48293	Spring	130	2	3 = 2 oz.	.20
G-48299	Follower Assembly	130	2	13 oz.	2.40
G-48300	Follower Assembly	128	2	2 = 9 oz.	1.85
48301	Adapter	130	2	6 oz.	.95
48308	Screw, Retaining	128	4	2 = 3 oz.	.65
48309	Washer	130	2	20 = 1 oz.	.05
48310	Plug, 3/4"-24 th'd	130	1	2 oz.	.35
48312	Nut, 7/16"-20	128	2	2 = 1 oz.	.15
48313	Piston	129	1	20 = 7 oz.	1.50
48315	Cone, Bottom	128	2	2 = 7 oz.	2.15
48316	Stem, Follower	128	2	7 oz.	.65
48317	Retainer	128	2	1 oz.	.45
48318	Leather, "V" 1 3/8" O.D.	128	4	25 = 1 oz.	.15
48319	Washer	128	2	6 = 1 oz.	.10
48321	Spring	128	2	3 = 1 oz.	.10
48322	Washer, 1 23/64" O.D.	128	2	4 = 1 oz.	.10
48325	Cap	128	2	1 oz.	1.35

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Numerical Parts List (continued) • 48326 to 49707

Part No.	Description	Page	Qty. Used	Weight	Price Each
48326	Spring, 8¾" long	128	2	2 oz.	$ 0.50
48327	Stem, Follower 17 13/16" long	127	1	10 oz.	.65
G-48337	Nozzle and Adapter	140	1	6 oz.	.60
48370	Ring, Wire	132	4	35 = 1 oz.	.05
48374	Sleeve	141	2	2 oz.	.25
48375	Extension	141	2	2 oz.	.45
G-48382	Piston and Bushing, Low Pressure	130	1	9 oz.	2.65
G-48385	Piston and Bushing	128	2	2 oz.	2.15
48516	Spring	125	1	40 = 1 oz.	.05
48536	Washer	125	1	50 = 1 oz.	.05
48649	Spring, 12½" long	130	2	4 oz.	.80
G-48661	Hose, 1½ Ft.	142	2	13 oz.	3.15
G-48668	Hose, 10 Ft. ⅜" I.D.	132	12	5¼ lbs.	15.00
48699	Nut	130	2	5 = 1 oz.	.05
G-48799	Conduit and Adapter	140	1	3 oz.	.50
48805	Plug	125	1	4 = 1 oz.	.15
48816	Spring, Lock	121	5	200 = 1 oz.	.05
48831	Leather, Cup 2" O.D.	127	1	4 = 1 oz.	.30
48832	Washer, Steel 1 15/16" O.D.	127	1	1 oz.	.15
48837	Bolt, 2 5/32" long	127	1	3 = 1 oz.	.15
48838	Nut, No. 12-24	127	1	50 = 1 oz.	.05
48846	Washer, Sealing ⅞" O.D.	126	1	10 = 1 oz.	.10
48853	Nut, ¾"-20	127	1	3 = 1 oz.	.15
48854	Adapter, ½"-27 x ⅛" P.T.	142	1	5 = 4 oz.	.20
48884	Gasket	125	1	50 = 1 oz.	.05
48916	Gasket	121	4	25 = 1 oz.	.05
48928	Seal, Rubber 11/16" O.D.	142	1	10 = 1 oz.	.30
48929	Washer, Steel 11/16" O.D.	142	1	30 = 1 oz.	.05
48930	Washer, Steel 11/16" O.D.	142	1	25 = 1 oz.	.05
48942	Lock Washer	125	5	200 = 1 oz.	.01
48943	Gasket	130	4	200 = 1 oz.	.05
48999	Lever	134	2	10 oz.	1.25
49139	Support	134	2	1 oz.	.50
49193	Extension, 1⅞" long	140	1	2 = 1 oz.	.25
49194	Extension, 6" long	140	1	2 oz.	.30
49386	Cylinder, 11 11/16" long	130	2	9 oz.	2.90
49387	Cylinder	128	2	10 oz.	1.65
49529	Packing	130	1	15 = 1 oz.	.10
49593	Hook	127	3	2 = 1 oz.	.25
49594	Ring, Lock	127	3	10 = 1 oz.	.10
49597	Spring, 15/16" long	140	4	20 = 1 oz.	.05
G-49634	Body, Follower	128	2	2 oz.	.60
49643	Ring, Wire	132	2	200 = 1 oz.	.05
49695	Washer, Copper 37/64" O.D.	141	2	4 = 1 oz.	.05
49698	Body, Coupling	140	4	1 oz.	.40
49700	Body	127	1	14 oz.	5.50
49702	Trigger	127	1	4 = 1 oz.	.35
49703	Retainer, Follower Spring	126	1	2 = 3 oz.	.65
49704	Body, Follower	126	1	7 oz.	.45
49705	Cap, Air Motor	127	1	1 oz.	1.10
49706	Arm, Magazine Connecting	126	1	2 = 5 oz.	.90
49707	Elbow, Air Motor Connecting	127	1	7 oz.	.85

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Numerical Parts List (continued)

49708 to 49781

Part No.	Description	Page	Qty. Used	Weight	Price Each
49708	Cap, Cylinder	126	1	3 oz.	$ 1.30
49709	Spring, Cylinder Cap	123	1	10 = 1 oz.	.05
49710	Washer, Steel	126	1	35 = 1 oz.	.05
49711	Washer, Copper	126	1	200 = 1 oz.	.05
49712	Hook	126	1	1 oz.	.15
49713	Packing, Rubber	126	1	10 = 1 oz.	.05
49714	Nut, Packing 1 3/8" Hex	126	1	1 oz.	.45
49715	Sleeve, 5/8" long	126	1	15 = 1 oz.	.10
49716	Screw, Release Valve	126	1	2 = 1 oz.	.20
49717	Stem, Follower 9 5/8" long	126	1	5 oz.	65
49718	Spring, Large Follower	126	1	1 oz.	.15
49719	Washer, Large Steel "V"	126	1	1 oz.	.10
49720	Cylinder	125	1	7 oz.	2.90
49721	Gasket, Cylinder End	126	1	55 = 1 oz.	.05
49722	Adapter, Cylinder	126	1	2 oz.	1.30
49723	Gasket, 2 5/16" O.D.	126	1	20 = 1 oz.	.05
49724	Adapter	126	1	3 oz.	.90
49725	Strainer	126	1	5 = 2 oz.	.20
49727	Body, Shut-Off Valve	126	1	2 oz.	.65
49728	Valve, Release	126	1	10 = 3 oz.	.15
49729	Gasket, 1 5/8" O.D.	126	1	50 = 1 oz.	.05
49730	Ring, Split	126	1	10 = 1 oz.	.05
49731	Washer, Steel 2 1/16" O.D.	126	2	5 = 1 oz.	.05
49732	Spring, Flat Wire 1 9/16" long	126	1	2 = 3 oz.	.40
49733	Spring, Flat Wire 3 3/4" long	126	1	2 = 3 oz.	.45
49735	Nut, Retainer	126	1	1 oz.	.30
49737	Shell, Retainer	126	1	2 = 5 oz.	.50
49738	Body, Locking Lug	126	1	3 oz.	.65
49741	Nut, Push	127	1	2 = 1 oz.	.25
49742	Plate, Steel 1 23/32" O.D.	127	1	10 = 5 oz.	.10
49743	Screw, Packing	127	1	5 = 1 oz.	.15
49744	Leather, Flange Packing 5/8" O.D.	127	1	50 = 1 oz.	.10
49745	Gasket, Air Valve 1 17/32" O.D.	127	1	20 = 1 oz.	.05
49746	Gasket, 1 41/64" long	127	1	150 = 1 oz.	.05
49747	Gasket, 7/8" O.D.	127	1	40 = 1 oz.	.05
49748	Body, Oiler	127	1	2 = 3 oz.	.45
49749	Body, Coupling	127	1	2 = 3 oz.	.50
49752	Fitting, Coupler	126	1	2 = 1 oz.	.20
49753	Clip, Guide	127	1	10 = 3 oz.	.10
49755	Retainer, Cup Leather	127	1	20 = 1 oz.	.05
G-49758	Clip and Pins, Spring	127	1	10 = 1 oz.	.20
49760	Screw, Trigger 1 5/32" long	127	1	5 = 1 oz.	.10
G-49763	Piston and Cylinder	126	1	4 oz.	5.00
49767	Washer, 9/32" O.D.	127	1	100 = 1 oz.	.05
49768	Body, Air Inlet Valve	127	1	2 = 1 oz.	.30
49770	Gasket, 7/16" O.D.	127	1	200 = 1 oz.	.02
49771	Washer, Sealing 1/4" O.D.	127	1	200 = 1 oz.	.05
49772	Plunger, Air Inlet Valve	127	1	25 = 1 oz.	.05
49773	Washer, Rubber 5/8" O.D.	127	1	150 = 1 oz.	.05
G-49774	Sleeve Assembly, Locking	127	1	2 = 9 oz.	1.10
49780	Screw, Exhaust Adjusting	127	1	2 = 1 oz.	.20
49781	Adapter, Exhaust	127	1	2 = 1 oz.	.20

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Numerical Parts List (continued)

49782 to 50070

Part No.	Description	Page	Qty. Used	Weight	Price Each
49782	Ring, Wire 33/64" O.D.	127	1	125 = 1 oz.	$ 0.05
49783	Lock, Exhaust Adjustment	127	1	50 = 1 oz.	.10
49784	Gasket, 2 17/32" O.D.	125	2	25 = 1 oz.	.05
49787	Rod, Trip	127	1	1 oz.	.55
49788	Nut, Trip Rod	127	1	10 = 1 oz.	.05
49789	Screw, Valve 21/64" long	127	1	20 = 1 oz.	.05
49790	Nut, Retaining 1" Hex.	127	1	4 = 3 oz.	.25
49792	Screw, Set 23/32" long	127	1	2 = 1 oz.	.07
49793	Bushing, Trip Rod	127	2	4 = 1 oz.	.10
49794	Plug, Large	127	1	1 oz.	.25
49796	Sleeve, Valve	127	1	1 oz.	.80
49797	Spring, Equalizer	127	2	50 = 1 oz.	.02
49798	Screw, Retaining	127	2	25 = 1 oz.	.05
49799	Spring, Trip Rod	127	2	15 = 1 oz.	.05
G-49800	Valve Assembly, Air	127	1	9 oz.	6.00
49801	Washer, 1/2" O.D.	127	1	50 = 1 oz.	.02
49803	Packing, 5/8" O.D.	127	2	25 = 1 oz.	.05
49804	Gasket, Valve Seat Upper	127	1	200 = 1 oz.	.05
49805	Gasket, Valve Seat Bottom	127	1	30 = 1 oz.	.05
49807	Wick, Oiler	127	1	50 = 1 oz.	.10
49809	Washer, 1" O.D.	126	1	20 = 1 oz.	.05
G-49813	Valve, Shut-Off	126	1	2 oz.	1.00
G-49814	Body and Gaskets, Air Valve	127	1	2 = 5 oz.	3.35
G-49815	Valve and Seat, Slide	127	1	1 oz.	1.35
49816	Stud, 2 1/2" long	127	2	2 = 1 oz.	.10
49817	Nut, Retaining	126	1	3 = 1 oz.	.10
G-49818	Head, Magazine	126	1	9 oz.	3.50
49819	Cylinder	126	1	7 oz.	2.90
G-49841	Nozzle Assembly	136	1	10 oz.	1.25
G-49865	Follower Assembly	126	1	7 oz.	2.40
49889	Washer, 19/32" O.D.	126	3	100 = 1 oz.	.07
49922	Spring, 1 5/16" long	126	1	10 = 1 oz.	.05
49992	Tip, Nozzle	140	1	4 = 3 oz.	.25
50041	Stud, Roller Control	135	2	5 = 1 oz.	.18
50042	Nut, Lock	135	2	50 = 1 oz.	.10
50043	Bottom, Chamber	135	2	3 oz.	1.35
50044	Top, Chamber	135	2	3 oz.	.75
G-50045	Disc Assembly	135	2	2 = 3 oz.	1.00
50046	Plate, Divider	135	2	2 = 1 oz.	.10
50053	Screw, Packing	136	1	5 = 1 oz.	.20
50054	Cam	136	1	20 = 5 oz.	.20
50055	Roller, Cam	135	4	100 = 1 oz.	.12
50056	Spring, Cam Roller	135	4	200 = 1 oz.	.02
50058	Screw, Knob Lock	135	2	100 = 1 oz.	.04
50059	Dial, Face	136	1	5 = 1 oz.	.35
50060	Spring, Retainer	136	1	1 oz.	.05
50063	Disc, Valve	135	2	5 = 2 oz.	.12
50065	Nut, Valve Stem	135	2	50 = 1 oz.	.02
50067	Pin, Valve Lever	135	2	10 = 1 oz.	.15
50069	Box, Packing	135	2	2 = 1 oz.	.90
50070	Packing, Valve Stem	135	2	250 = 1 oz.	.08

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Numerical Parts List (continued)

50071 to 51711

Part No.	Description	Page	Qty. Used	Weight	Price Each
50071	Lever	136	1	2 oz.	$ 0.70
50074	Spring, Valve	135	2	1 oz.	.20
50075	Retainer, Valve Spring	135	2	75 = 1 oz.	.10
50076	Screw, Swivel Lock	136	1	100 = 1 oz.	.05
50077	Bushing, Swivel	136	1	2 = 5 oz.	1.00
50130	Washer, Steel 1" O.D.	126	1	20 = 1 oz.	.05
50157	Body, 4 13/16" long	134	2	12 oz.	3.00
50158	Stem, Plunger 3 15/64" long	134	2	5 = 2 oz.	.25
50159	Rod, Plunger	134	2	10 = 1 oz.	.10
50163	Nut, Thumb	141	1	2 = 3 oz.	.40
50282	Body, Angle	136	1	2 = 5 oz.	.40
G-50292	Extension and Bushing	136	1	4 oz.	.50
50306	Washer	122	8	25 = 1 oz.	.01
50343	Washer, Sealing	127	1	100 = 1 oz.	.05
50344	Washer, Sealing	127	1	100 = 1 oz.	.07
G-50345	Valve, Air Check	127	1	20 = 1 oz.	.10
50363	Lever	125	1	5 = 1 oz.	.30
50365	Screw	125	1	5 = 1 oz.	.20
50366	Spring	125	1	3 oz.	.40
50368	Stem	125	1	2 oz.	.40
50369	Washer	125	1	5 = 4 oz.	.10
50370	Leather	125	1	10 = 3 oz.	.20
50371	Washer	125	1	5 = 3 oz.	.10
50375	Gasket	125	1	100 = 1 oz.	.05
50376	Valve	125	1	10 = 3 oz.	.25
50377	Spring	125	1	35 = 1 oz.	.05
50384	Bolt	125	1	7 = 1 oz.	.07
50388	Gasket	125	1	7 = 1 oz.	.15
50389	Gasket	125	1	40 = 1 oz.	.02
50394	Washer	125	1	10 = 1 oz.	.05
G-50474	Stem, Air Inlet Valve	127	1	10 = 1 oz.	.10
50476	Washer, Rubber 13/64" O.D.	127	1	500 = 1 oz.	.05
50477	Washer, Lead	127	1	200 = 1 oz.	.05
50478	Stem, Valve	127	1	9 = 1 oz.	.09
50480	Spring	127	1	50 = 1 oz.	.05
50546	Washer	141	1	200 = 1 oz.	.05
G-50582	Valve	125	1	5 = 2 oz.	.25
50623	Body, Adapter	126	1	2 oz.	.90
G-50625	Valve, Loader	126	1	2 = 5 oz.	1.75
50690	Spring	127	1	50 = 1 oz.	.05
G-50772	Hose, 7 Ft. long ½"-27 th'd	133	4	3½ lbs.	11.25
51242	Body, Adapter	132	2	1 oz.	.40
51243	Sleeve	132	2	1 oz.	.15
G-51280	Chamber Assembly	135	2	8 oz.	3.20
51282	Clip, Spring	135	2	5 = 1 oz.	.10
G-51400	Nozzle Assembly	136	1	1 oz.	.65
51548	Washer, "V" Steel	138	10	5 = 1 oz.	.10
51549	Washer, Steel	138	10	5 = 1 oz.	.10
51550	Leather, "V"	138	30	50 = 1 oz.	.07
G-51552	Body, Elbow	138	5	6 oz.	2.35
G-51553	Stud, Swivel	138	5	2 = 7 oz.	1.35
51711	Reservoir	146	1	12 oz.	.95

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Numerical Parts List (continued) — 51713 to G-54208

Part No.	Description	Page	Qty. Used	Weight	Price Each
51713	Spring, 4 13/16" long	146	1	2 = 3 oz.	$ 0.30
51720	Clamp	146	1	6 oz.	.65
G-51721	Plug and Packing, Sealing	146	1	3 oz.	.65
G-51723	Base	146	1	12 oz.	1.10
51727	Screw, 3/4" long	130	2	10 = 1 oz.	.07
51891	Bushing, 1/4" x 1/2" P.T.	144	1	1 oz.	.25
51954	Retainer	146	1	2 = 3 oz.	.40
51955	Plate, Top 2 15/32" O.D.	146	1	1 oz.	.35
51956	Plate, 2 1/8" O.D.	146	1	1 oz.	.25
51957	Cover	146	1	2 = 9 oz.	.25
52038	Packing	125	2	75 = 1 oz.	.05
G-52122	Stud and Nut	146	1	3 oz.	.75
G-52304	Head and Piston	125	1	11 oz.	5.00
52321	Sleeve	125	1	10 = 7 oz.	.35
52479	Bushing, 1/4" x 1/2" P.T.	123	8	2 = 3 oz.	.35
G-52602	Nozzle and Extension	135	1	5 oz.	.75
G-52603	Odometer	135	1	2 oz.	2.50
G-52604	Odometer	137	1	2 oz.	2.50
G-52750	Swivel, Straight 1/4" P.T. x 1/2"-27 th'd	132	4	2 = 9 oz.	1.00
G-52751	Swivel, 90° 1/4" P.T. x 1/2"-27 th'd	133	4	9 oz.	2.85
52753	Adapter, Swivel 1/4" P.T.	132	4	2 = 5 oz.	.45
52757	Leather, Swivel "V"	132	24	100 = 1 oz.	.05
52758	Washer, Steel Top 39/64" O.D.	132	8	10 = 1 oz.	.05
52759	Washer, Steel Bottom 39/64" O.D.	132	8	10 = 1 oz.	.05
G-52762	Stud Assembly, Swivel	132	4	2 oz.	.60
G-52763	Body, Angle	133	4	4 oz.	1.25
52838	Screw, Self-Tapping Name Plate		26	28 = 1 oz.	.01
52969	Adapter, 3/8" x 1/2" P.T. 90°	123	2	2 = 13 oz.	.75
53239	Plate, "Oil" Name		2	3 oz.	.05
53249	Plate, "Air" Name		1	3 oz.	.05
53454	Adapter	123	2	3 oz.	.85
53458	Spring	123	2	5 = 1 oz.	.10
53459	Body	123	2	4 oz.	.60
53460	Ball	123	2	2 = 1 oz.	.10
53462	Plate, Valve	123	2	3 = 1 oz.	.35
53479	Washer	123	4	7 = 1 oz.	.10
53488	Leather, Cup	123	4	10 = 1 oz.	.20
53489	Guide	123	2	1 oz.	.25
53492	Sleeve	123	2	2 = 1 oz.	.40
53494	Seat, Valve	123	2	4 oz.	.60
53735	Nut	125	1	5 = 1 oz.	.25
G-53750	Hose, 50 Ft. Air	143	1	8 lbs.	9.30
53922	Adapter, Check Valve	126	1	4 oz.	.80
53977	Screw, Packing	136	1	5 = 4 oz.	.35
53978	Packing	136	1	10 = 1 oz.	.10
53979	Spring	136	1	8 = 1 oz.	.05
G-54200	Stem, Valve	135	2	10 = 3 oz.	.35
54201	Retainer, Valve Disc	135	2	5 = 1 oz.	.15
54202	Guide, Valve Stem	135	2	15 = 1 oz.	.15
G-54203	Stem Assembly, Valve	135	2	2 = 1 oz.	.80
54205	Trigger, Valve	135	2	2 oz.	.70
G-54208	Body Assembly	135	2	3 3/4 lbs.	16.50

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Numerical Parts List (continued)

Part No.	Description	Page	Qty. Used	Weight	Price Each
54209	Spring, Valve Trigger Lock	135	2	50 = 1 oz.	$ 0.08
54210	Rivet, Valve Trigger Lock	135	2	10 = 1 oz.	.05
G-54211	Trigger and Lock Assembly	135	2	3 oz.	1.10
54212	Lock, Valve Trigger	135	2	4 = 1 oz.	.30
G-54214	Cap and Adapter Assembly	135	1	8 oz.	4.00
54215	Bracket, Left Hand	135	2	2 oz.	.50
54216	Bracket, Right Hand	135	1	2 oz.	.50
54217	Screw, Set ½" long	135	2	10 = 1 oz.	.12
G-54219	Pinion, First Register	135	1	1 oz.	.85
54220	Shaft, Second Register Gear	135	1	10 = 1 oz.	.12
54221	Gear, Second Register	135	1	5 = 1 oz.	.35
G-54222	Spindle, Upper Drive	135	1	2 = 1 oz.	1.00
54223	Sleeve, Clutch Retainer	135	2	5 = 1 oz.	.35
54224	Packing, Spindle	135	2	20 = 1 oz.	.12
54225	Gland, Packing Box	135	1	5 = 1 oz.	.15
G-54226	Worm, Register (R.H.)	135	1	10 = 3 oz.	.80
G-54228	Pinion, Compound	135	1	20 = 5 oz.	.70
54229	Screw, ¼" long	135	4	20 = 1 oz.	.05
54230	Cam, Inner Circle Pointer	135	1	10 = 6 oz.	.30
G-54231	Pointer, Inner Circle	135	1	20 = 7 oz.	.70
54232	Spacer	135	1	25 = 1 oz.	.10
54233	Cam, Reset Lock	135	2	10 = 3 oz.	.20
54234	Nut, Lock	135	2	50 = 1 oz.	.05
54237	Spring, Reset Knob Plunger	135	2	200 = 1 oz.	.03
54238	Plunger, Reset Knob	135	2	100 = 1 oz.	.06
54239	Knob, Reset	135	1	5 = 4 oz.	.35
54240	Dial, Face	135	1	1 oz.	.65
54241	Window, Dial	135	2	10 = 1 oz.	.20
54242	Screw	135	4	200 = 1 oz.	.05
G-54243	Train, Gear	135	1	4 oz.	5.50
54245	Gasket, Housing Cap	135	2	15 = 1 oz.	.20
54246	Knob, Reset	137	1	5 = 4 oz.	.35
G-54247	Pinion, First Register	137	1	1 oz.	.90
G-54248	Train, Gear	137	1	4 oz.	5.50
G-54249	Pinion, Second Register	137	1	5 = 1 oz.	.60
54250	Shaft, Second Register Gear	137	1	10 = 1 oz.	.12
54251	Bracket, Right Hand	137	1	2 oz.	.50
G-54252	Spindle, Upper Drive Pinion	137	1	1 oz.	1.00
54253	Worm, Register (R.H.)	137	1	10 = 3 oz.	.60
54254	Spacer	137	1	25 = 1 oz.	.10
54255	Cap, Housing	136	1	8 oz.	2.50
54256	Nut, Swivel Retainer	136	1	3 oz.	1.50
54257	Packing, Swivel	136	1	20 = 5 oz.	.25
54258	Gasket, Swivel Liner	136	1	200 = 1 oz.	.05
54259	Body, Swivel	136	1	8 oz.	2.00
54260	Screw, Set	136	1	60 = 1 oz.	.07
54265	Dial, Face	137	1	1 oz.	.65
54610	Body, ¼" Male P.T.	143	2	2 oz.	.25
54611	Sleeve, 1" long	143	11	5 = 3 oz.	.25
54612	Spring, 11/16" long 25/32" O.D.	143	11	10 = 1 oz.	.05
54616	Body, Coupling	143	11	5 = 4 oz.	.25
54617	Body, ¼" Female P.T.	143	9	2 = 3 oz.	.25

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Numerical Parts List (continued) — G-54946 to 130572

Part No.	Description	Page	Qty. Used	Weight	Price Each
G-54946	Oiler	143	1	1 lb.	$ 3.95
69865	Lock Washer, 1/4"	138	38	35 = 2 oz.	.01
75178	Screw	126	1	10 = 1 oz.	.01
76771	Screw, 1/4"-20 x 3/4" Hex. Head	121	32	20 = 7 oz.	.05
76842	Lock Washer, No. 8	121	8	100 = 1 oz.	.01
76843	Lock Washer for No. 8 Screw		40	100 = 1 oz.	.02
76851	Washer	125	5	75 = 1 oz.	.02
76855	Lock Washer, 1/4"	139	2	50 = 1 oz.	.02
76866	Washer	125	1	10 = 1 oz.	.01
76907	Lock Washer, No. 12	127	7	50 = 1 oz.	.01
76910	Lock Washer, 3/8"	121	48	20 = 1 oz.	.01
76914	Lock Washer, 1/2"	139	12	5 = 2 oz.	.02
76917	Lock Washer, 9/16"	121	4	4 = 1 oz.	.05
76947	Lock Washer, No. 8		10	110 = 1 oz.	.01
76966	Lock Washer, 3/8"	138	35	20 = 1 oz.	.01
77045	Screw, No. 8-32 x 3/8" Round Head		10	10 = 1 oz.	.02
77650	Nut, 1/4"-20 Hex.	138	20	10 = 1 oz.	.02
77676	Nut	134	2	10 = 1 oz.	.02
77678	Pin, Cotter		4	25 = 1 oz.	.02
77681	Screw, 3/8"-16 x 1 3/4" Hex. Head		4	2 = 1 oz.	.10
77730	Screw, 3/8"-16 x 1" Hex Head		1	5 = 4 oz.	.05
77736	Screw, 1/4"-20 x 7/8" Hex. Head		4	10 = 3 oz.	.03
77783	Nut, 3/8"-16 Hex.	139	7	4 = 1 oz.	.05
77786	Screw, 1/4"-20 x 1/2" Hex. Head	139	16	5 = 1 oz.	.02
77805	Screw, 1/2"-13 x 1" Hex. Head	139	8	2 = 3 oz.	.10
77817	Screw, 5/16"-18 x 7/8" Hex. Head	121	16	2 = 1 oz.	.05
77824	Screw, 1/4"-20 x 5/16"	143	1	7 = 1 oz.	.02
77857	Screw, No. 8-32 x 1/4" Rd. Head Mach.		40	10 = 1 oz.	.02
77890	Nut, 1/2"-13 Hex.	139	4	2 oz.	.05
77903	Nut, No. 8-32 Hex.		50	5 = 1 oz.	.05
77931	Screw, 3/8" x 2 1/2" Machine	127	1	5 = 1 oz.	.05
77941	Screw, No. 12-24 x 1 1/4" Fil. Head	125	4	5 = 1 oz.	.05
77993	Screw, No. 12-24 Fil. Head	138	5	12 = 1 oz.	.02
79002	Screw, 1/4"-20 x 3/8" Hex. Head	139	2	7 = 1 oz.	.05
79192	Screw	134	2	3 = 1 oz.	.15
79344	Nut, 1/2"-20 Hex.	138	10	2 = 1 oz.	.05
79345	Lock Washer, 1/2"	138	10	19 = 1 oz.	.05
79632	Screw, 1/4"-20 x 1 1/4" Flat Head	139	8	20 = 5 oz.	.02
79643	Nut, 3/4"-10		4	1 oz.	.05
130127	Gasket, 15/16" O.D. Reservoir Oiler	143	1	50 = 1 oz.	.05
130138	Gasket, 27/64" O.D.	143	1	100 = 1 oz.	.02
130139	Gasket, 1 3/4" O.D.	143	1	20 = 1 oz.	.10
130140	Nut, Clamping	143	1	2 oz.	.90
130141	Head, Reservoir Oiler	143	1	2 oz.	1.50
G-130147	Wick and Screen, Reservoir Oiler	143	1	5 = 1 oz.	.50
130217	Plate, "Gear" Name		3	3 oz.	.05
130218	Plate, "Chassis" Name		5	3 oz.	.05
130312	Stop	138	5	8 = 1 oz.	.05
130321	Elbow	138	5	10 oz.	.85
G-130547	Hose, 4 Ft. Air	139	1	14 oz.	1.75
G-130548	Hose, 2 Ft. Air	144	5	7 oz.	1.20
130572	Tee, 1" x 1" x 1/4"	144	1	9 oz.	.65

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Numerical Parts List (continued) — 130575 to 131391

Part No.	Description	Page	Qty. Used	Weight	Price Each
130575	Nipple, ¼" Close	121	7	2 oz.	$ 0.10
130577	Tee, ¼"	144	1	2 oz.	.20
G-130615	Hose, 6 Ft. Air	144	1	1¼ lbs.	2.25
G-130708	Stud and Washer Assembly	123	2	20= 3 oz.	.15
130873	Elbow, ½" P.T. 90°	144	1	2= 7 oz.	.40
131212	Nut	121	4	2= 5 oz.	.45
131213	Spreader	121	8	1 oz.	.30
131214	Plate	121	4	2=11 oz.	.60
131215	Leather, Cup	121	8	1 oz.	.85
131216	Lock Washer	121	4	5= 1 oz.	.10
G-131220	Rod and Nut, Piston	123	2	10 oz.	1.75
131221	Plate, Guide	121	4	7 oz.	.75
131222	Plate	121	4	7 oz.	.75
G-131225	Support	123	2	4¾ lbs.	12.50
131231	Plug	121	4	5 oz.	.90
131232	Sleeve	121	4	5= 2 oz.	.20
131233	Gasket	121	4	50= 2 oz.	.05
131234	Cam	121	4	4 oz.	2.75
131237	Ring	123	2	10= 5 oz.	.20
131238	Nut	123	2	3 oz.	.85
131241	Cylinder, Air	121	4	4 lbs.	12.50
131242	Gasket	121	4	9= 1 oz.	.15
131243	Valve and Seat, Air Slide	121	4	4 oz.	1.75
131244	Screw, No. 8-32	121	8	10= 1 oz.	.10
131245	Leather, "V"	123	16	20= 1 oz.	.10
131246	Washer	123	4	5= 1 oz.	.15
131247	Washer	123	4	5= 1 oz.	.15
131248	Gasket	121	8	50= 3 oz.	.15
131249	Washer	121	8	20= 3 oz.	.05
131250	Head, Cylinder	121	4	2¼ lbs.	6.00
131251	Packing	121	4	10= 1 oz.	.12
131252	Screw	121	4	10=11 oz.	.30
131257	Coupling	122	6	5= 4 oz.	.15
131284	Plate	121	4	2= 7 oz.	.65
131292	Pin	121	4	100= 1 oz.	.05
131293	Nut	121	4	5= 1 oz.	.20
131295	Rod	121	4	1 oz.	.75
131296	Gasket	121	4	50= 1 oz.	.05
131297	Gasket	121	4	50= 1 oz.	.05
131298	Spring	121	8	10= 3 oz.	.07
131299	Spring	121	4	5= 3 oz.	.15
131306	Plug	121	8	5= 8 oz.	.50
131308	Nut	121	4	5= 1 oz.	.20
131309	Gasket	121	6	30= 1 oz.	.05
131324	Gasket	122	4	6= 1 oz.	.07
G-131326	Roller Assembly	121	8	5= 6 oz.	1.35
131349	Stud, Hood	121	4	1 oz.	.25
131378	Tube, Air	121	4	1 oz.	.15
G-131380	Rod and Bushing, Piston	122	2	14 oz.	7.50
131383	Nut, Retainer	122	2	5 oz.	.85
131385	Ring, Packing	122	2	20= 1 oz.	.07
131391	Support	122	2	4¾ lbs.	15.00

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Numerical Parts List (continued) — 131392 to 301191

Part No.	Description	Page	Qty. Used	Weight	Price Each
131392	Angle Body, 3/8" P.T.	122	2	2 = 13 oz.	$ 0.75
131394	Screw	122	2	5 = 4 oz.	.30
131395	Sleeve	122	2	14 oz.	1.75
131396	Packing	122	4	25 = 1 oz.	.05
131397	Body, Valve	122	2	2 = 3 oz.	.35
131398	Seat, Valve	122	2	2 oz.	.40
131401	Gasket	122	2	40 = 3 oz.	.05
131402	Gasket	122	6	25 = 1 oz.	.05
131403	Adapter	122	2	2 = 7 oz.	.35
131404	Body, Lower Valve	122	2	10 oz.	2.25
131411	Plate	122	2	5 = 3 oz.	.15
131413	Gasket	122	2	25 = 1 oz.	.05
131559	Block	121	4	4 oz.	.45
131586	Bushing, 3/8" x 1/2" P.T.	133	2	1 oz.	.25
131658	Body, Valve	121	4	4 oz.	.75
131659	Cap, Valve	121	4	3 oz.	.80
G-131660	Valve, Pressure Release (Hose Miser)	121	4	7 oz.	2.00
G-131662	Plunger, Pressure Release	121	4	1 oz.	.50
G-131750	Body	121	2	2 3/4 lbs.	15.00
131799	Gasket	123	2	50 = 1 oz.	.10
G-300028	Regulator, Air	142	1	1 3/4 lbs.	6.75
G-300049	Gauge, Air	144	1	9 oz.	1.60
300340	Washer, Guide	122	2	5 = 1 oz.	.10
300628	Pin	122	2	20 = 1 oz.	.05
G-300715	Piston and Cylinder, High Pressure	122	2	1 1/2 lbs.	7.50
300716	Ring, Split	122	4	100 = 1 oz.	.05
300717	Bushing	122	2	10 = 1 oz.	.20
300718	Rod	122	2	2 = 3 oz.	.35
300719	Retainer, Packing	121	4	9 = 1 oz.	.10
G-300910	Swivel, Reel Inlet	138	5	10 oz.	3.70
300922	Coupling, 1/4" x 1/2" P.T.	144	1	2 oz.	.35
301080	Seal, Rubber	142	1	10 = 1 oz.	.25
301081	Washer, Steel	142	1	25 = 1 oz.	.05
301160	Handle	127	5	14 oz.	1.75
301162	Lever	131	2	1 lb.	2.50
301163	Head	130	2	14 oz.	4.25
301164	Cylinder, 12 11/32" long	131	2	1 1/2 lbs.	3.00
301165	Cap, 2 11/16" Hex.	131	2	8 oz.	2.00
301168	Gasket, 2 7/16" O.D.	131	2	17 = 1 oz.	.05
301169	Hook, 2 29/32" O.D.	131	2	5 = 4 oz.	.40
301170	Ring, Hook Retainer	131	2	8 = 1 oz.	.10
301175	Cone, Bottom	127	3	7 oz.	2.15
301176	Cylinder	129	2	10 oz.	2.00
301177	Cylinder	127	1	1 1/4 lbs.	2.50
301179	Cap	127	1	5 oz.	1.75
301180	Cap	129	2	5 oz.	1.75
301181	Adapter, Extension	129	2	12 oz.	4.00
301187	Nut, 3/8"-24	129	2	7 = 1 oz.	.35
301188	Nozzle, Push Type	129	2	10 = 7 oz.	.80
301189	Adapter	129	2	10 = 3 oz.	.60
301190	Guide	129	2	90 = 1 oz.	.20
301191	Spring	129	2	700 = 1 oz.	.02

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Numerical Parts List (continued)

301197 to 302101

Part No.	Description	Page	Qty. Used	Weight	Price Each
301197	Coupling, 3/8" x 1/2" P.T. Reducing	133	4	5 oz.	$ 0.50
301289	Bowl, Oiler	143	1	3 oz.	.65
301364	Nut, Wing	132	13	2 oz.	.15
301483	Washer	122	2	15 = 1 oz.	.05
301511	Gasket, 5/8" O.D.	129	2	120 = 1 oz.	.02
301637	Body, 1/4" P.T. Connector	121	4	2 = 1 oz.	.07
301715	Washer, Steel 19/32" O.D.	135	3	50 = 1 oz.	.10
G-301887	Piston and Bushing, Low Pressure	131	1	9 oz.	3.00
G-301890	Piston and Bushing, High Pressure	131	1	7 oz.	3.00
G-301914	Pin, Reel Lock	138	5	2 = 5 oz.	.35
301916	Roller, Reel	138	5	6 oz.	.20
301917	Stud, Roller	138	5	6 oz.	.30
301932	Reducer, 1" x 1/2" P.T.	144	1	8 oz.	.45
301937	Extension, 1" P.T. 19 1/2" long	144	1	2 1/2 lbs.	.55
301949	Adapter	125	1	2 oz.	1.15
301989	Wrench, 7/16" x 9/16" Open End	139	1	3 oz.	1.20
302024	Cover	121	4	3 1/4 lbs.	.75
302028	Knob	121	4	3 oz.	.75
302031	Drawer (only), Specialized Gun		1	20 3/4 lbs.	8.50
G-302037	Hood, Pump	121	4	3 3/4 lbs.	4.00
G-302038-A	Gasoline Engine (Wisconsin Model AEH)	104	1	136 lbs.	113.00
G-302043	Valve, Drain 1/4" P.T.	139	1	12 oz.	3.40
G-302046	Tank, Lubricant (less covers)		1	200 lbs.	180.00
G-302050	Tank, Lubricant (complete)		1	222 lbs.	198.00
302053	Clip, Small		2	3 = 1 oz.	.12
302054	Clip		1	2 oz.	.25
G-302056	Clip, Medium		6	1 oz.	.20
G-302058	Gauge, Tire Pressure (Schrader No. 2030)	148	1	1 3/4 lbs.	7.00
G-302061	Bridge and Stud	143	1	1 lb.	3.00
302062	Clamp, Reel Hose	132	5	3 oz.	.75
G-302063	Clamp, Reel Hose 1/4" x 1/4" P.T.	143	1	1 1/4 lbs.	4.00
G-302064	Stand, Air Line	144	1	12 lbs.	29.00
302065	Spacer, Reel	139	2	12 1/2 lbs.	7.50
G-302066	Bridge and Stud	132	4	1 lb.	3.00
G-302067	Clamp, Reel 3/8" x 3/8" P.T.	132	4	1 1/4 lbs.	4.00
302068	Plate, Lock	138	5	7 oz.	.30
G-302069	Plate and Bushing Assembly	138	5	1 1/4 lbs.	1.50
G-302071	Angle and Frame Assembly	138	5	8 3/4 lbs.	14.00
G-302072	Wheel Assembly	138	5	14 lbs.	23.00
302074	Adapter	134	2	2 = 3 oz.	.80
302075	Manifold, Air	144	1	13 oz.	1.75
G-302078	Cover, Accessory	139	1	4 1/2 lbs.	6.30
G-302080	Reel, Hose	138	5	28 lbs.	49.50
302081	Block, Mounting	139	1	10 oz.	1.35
302083	Plate, "Drain" Name		1	10 = 3 oz.	.05
302084	Flange	139	1	8 oz.	1.40
302088	Gasket	139	1	10 = 3 oz.	.12
302094	Connector	134	2	2 = 3 oz.	.50
302097	Screw, 5/16"-18 x 3/4" Spec	139	4	1 oz.	.02
302098	Cover, Lubricant Tank	139	3	5 1/4 lbs.	2.75
302099	Hinge, Cover	139	3	1 lb.	.85
G-302100	Valve, Control	134	2	1 3/4 lbs.	9.30
302101	Block, Hinge	139	3	9 oz.	.55

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Numerical Parts List (continued)

302102 to 302486

Part No.	Description	Page	Qty. Used	Weight	Price Each
302102	Screw	139	9	10 = 7 oz.	$ 0.25
302103	Pin, ¾" long	139	9	8 = 1 oz.	.05
302104	Pin, Hinge 3" long	139	3	2 oz.	.07
302105	Gasket, 29⅜" long	139	3	5 = 2 oz.	.15
302106	Stud, 1 11/32" long	139	3	1 oz.	.25
302107	Washer, Felt 1¼" O.D.	139	3	80 = 1 oz.	.02
302141	Nipple, 1" P.T. 4" long	144	1	7 oz.	.15
302145	Elbow, 90° 1" P.T.		1	11 oz.	.50
302146	Nipple, 1" P.T. 4" long		1	10 oz.	.20
302147	Washer, Leather	122	4	13 = 1 oz.	.03
302148	Gasket	139	4	5 = 4 oz.	.55
302288	Washer	139	16	10 = 1 oz.	.03
302373	Bar, Mounting	139	1	6 lbs.	2.30
G-302400	Frame		1	373 lbs.	135.00
G-302404	Box, Tool		1	81½ lbs.	35.00
G-302405	Extinguisher and Bracket, Fire (Pyrene No. C-31-T with No. B4T Bracket)		1	9¾ lbs.	17.00
G-302406	Padlock with Key	139	4	7 oz.	1.25
G-302407	Unit, Hydraulic Brake Service (Wagner No. FL-308)		1	15½ lbs.	25.00
G-302408	Light, Trouble	139	2	1 lb.	5.00
G-302409	Bulb, Light		4	1 oz.	.25
G-302411	Wrench, 10" Crescent	139	1	1 lb.	2.25
302412	Screwdriver, 10"	139	1	4 oz.	.50
302413	Hammer, 1-lb. Ball Peen	139	1	1¼ lbs.	1.20
302414	Pliers, 6"	139	1	7 oz.	.45
302417	Box (only), Spare Parts	139	1	8 lbs.	4.60
G-302423	Compressor and Receiver (less Engine)		1	473 lbs.	290.00
G-302424	Compressor, Receiver, and Engine (complete)		1	609 lbs.	403.00
302434	Rod, Connecting	122	2	4 oz.	1.20
302435	Tube	122	2	5 lbs.	2.75
302436	Rod	123	2	8 oz.	1.10
302437	Cylinder	123	2	2½ lbs.	2.25
302438	Adapter	123	2	8 oz.	1.00
302439	Gasket	123	2	90 = 1 oz.	.10
302440	Elbow, ½" x ⅜" P.T. 90°	123	2	7 oz.	.75
302441	Body, Angle	122	2	12 oz.	.75
302442	Tube	121	2	1 oz.	.15
302443	Bolt, ¾"-10 x 10" Sq. Head		2	1½ lbs.	.30
302444	Bolt, ¾"-10 x 4½" Sq. Head		2	11 oz.	.20
302463	Adapter	125	1	10 oz.	3.50
302464	Washer	125	1	64 = 1 oz.	.02
302465	Washer	125	2	10 = 13 oz.	.90
302466	Disc	125	1	63 = 1 oz.	.02
302467	Spring	125	1	6 = 1 oz.	.15
302468	Screw	125	1	2 = 1 oz.	.45
302469	Cap	125	1	12 oz.	3.00
302473	Stem	125	1	2 = 7 oz.	.75
302474	Knob	125	1	3 oz.	.95
G-302475	Stem and Knob	125	1	7 oz.	1.75
302476	Washer	125	1	29 = 1 oz.	.15
302486	Spring	122	2	4 = 1 oz.	.10

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Numerical Parts List (continued) — 302488 to 426020

Part No	Description	Page	Qty. Used	Weight	Price Each
302488	Body	125	1	20=11 oz.	$ 0.95
302489	Nozzle	125	1	4= 1 oz.	.40
G-302490	Valve	125	1	1 oz.	1.45
G-302493	Body	125	1	2 lbs.	6.50
302494	Drawer (only), Spray Gun and Adapter		1	23¼ lbs.	8.50
302497	Clip, Small		4	8= 1 oz.	.05
G-302499	Clip, Large		5	2= 1 oz.	.35
G-302566	Clip		3	1 oz.	.30
302569	Tube	121	2	1 oz.	.15
G-302580	Body	136	1	3½ lbs.	14.00
302581	Knob, Reset	136	1	5= 4 oz.	.25
302582	Spacer	136	1	25= 1 oz.	.10
302583	Sleeve, Knob Retainer	136	1	5= 1 oz.	.30
G-302585	Hook, Fluid-Bal	139	2	1 oz.	.12
302586	Spring	139	2	1 oz.	.10
302591	Washer, Beveled	139	16	2= 3 oz.	.12
302592	Frame, Fluid-Bal	139	1	3½ lbs.	2.30
G-302595	Tube, Exhaust	139	1	3¼ lbs.	9.50
302646	Wrench, 5/16" Open End	119	1	2 oz.	.85
302649	Washer, Chamois	136	1	50= 1 oz.	.02
G-302687	Assembly, Gear and Spindle	136	1	1 oz.	1.00
302688	Pin, Pointer Stop	136	1	50= 1 oz.	.04
302717	Leather	125	2	20= 9 oz.	.25
302720	Manifold, Air	145	1	13 oz.	1.75
G-302746	Stand, Air	145	1	5 lbs.	26.00
302849	Tee	145	1	2= 9 oz.	.35
G-302900-A	Coupling, Standard Button Head	142		5 oz.	2.90
G-303199	Gear Train Assembly	136	1	4 oz.	5.50
*382391	Gaskets (complete set for carburetor)	112	1	1 oz.	.60
*425104	Venturi, 21/32"	112	1	2 oz.	.76
*425106	Float	112	1	1 oz.	1.66
*425112	Valve, Choke	112	1	2= 1 oz.	.30
*425122	Gasket, Main Body	112	1	10= 1 oz.	.16
*425123	Tube, Idle (No. 74)	112	1	2= 1 oz.	.60
*425130	Lever, Choke	112	1	1 oz.	.30
*425157	Packing, Felt	112	1	50= 1 oz.	.16
*425158	Retainer, Felt Packing	112	1	10= 1 oz.	.08
*425159	Hanger, Float	112	1	2= 1 oz.	.22
*425160	Plug, Channel	112	1	20= 1 oz.	.22
*425161	Screw, Throttle Valve	112	2	15= 1 oz.	.02
*425162	Pin, Float Fulcrum	112	1	3= 1 oz.	.16
*425163	Tube, Vent	112	1	2= 1 oz.	.30
*425173	Valve and Seat, Float Needle	112	1	2= 1 oz.	.98
*425176	Gasket, Float Needle Valve Seat	112	1	30= 1 oz.	.06
*425178	Body, Main	112	1	2 lbs.	6.00
*425201	Screw, Choke Valve	112	1	15= 1 oz.	.02
*425202	Lock Washer, Choke Lever Screw	112	1	25= 1 oz.	.02
*425206	Valve, Throttle	112	1	2= 1 oz.	.68
*425256	Stem and Lever, Choke	112	1	4 oz.	.98
*425405	Lever and Shaft, Throttle	112	1	6 oz.	2.18
*425406	Body, Throttle	112	1	1½ lbs.	11.25
*426020	Carburetor, Stromberg (Wisconsin No. L-45-B-2)	112	1	3½ lbs.	16.15

*Parts supplied by Wisconsin Motor Corporation.

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